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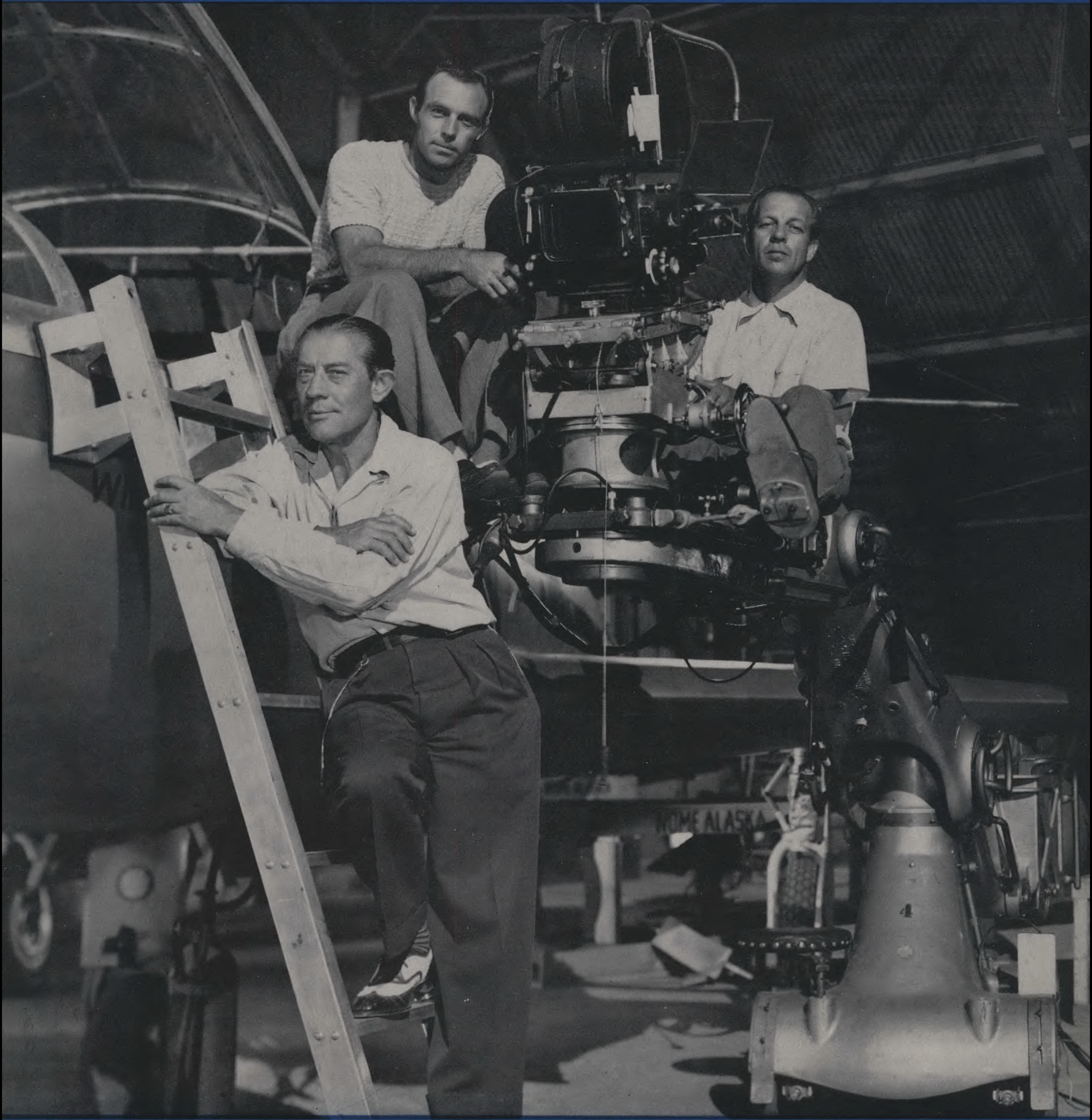

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

JULY
1949

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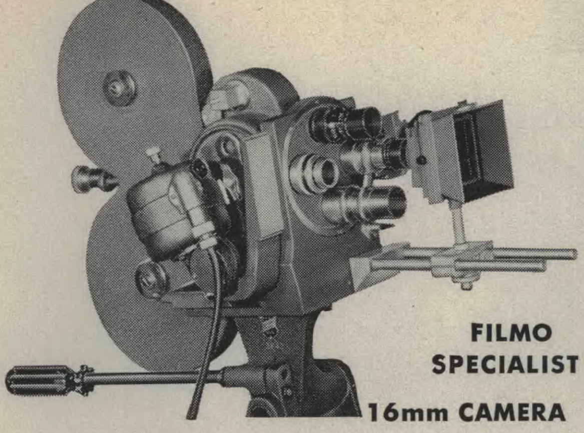

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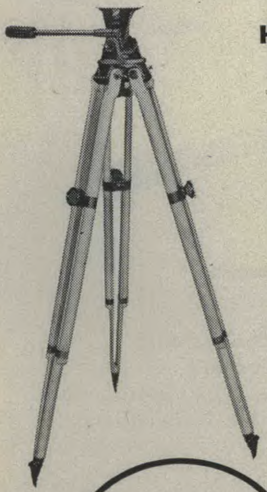

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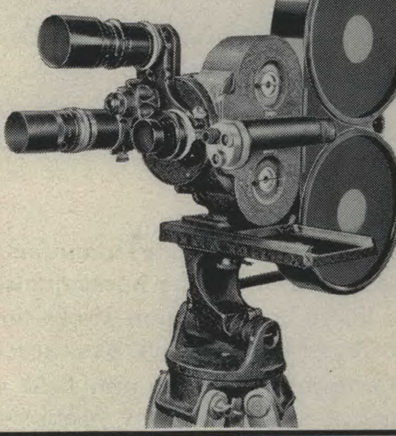

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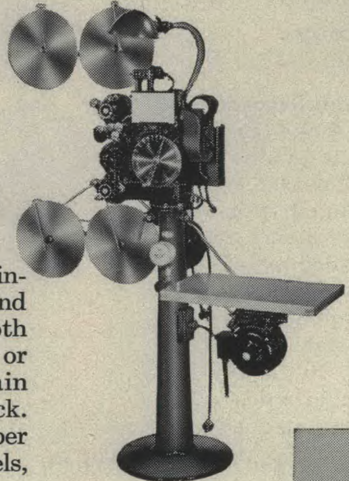

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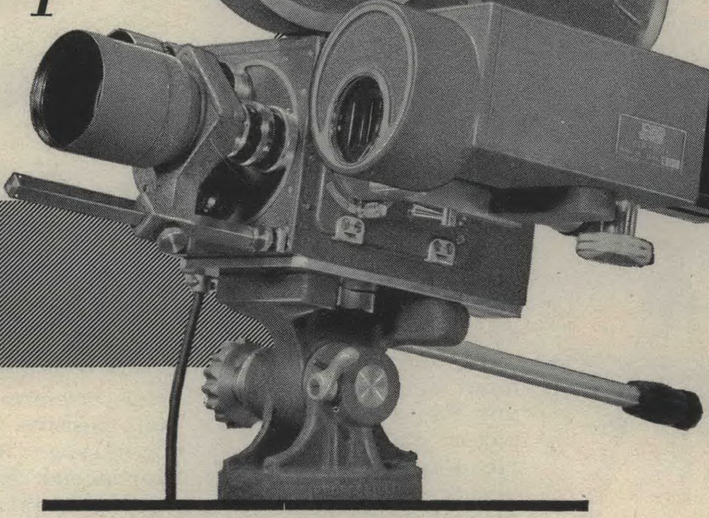

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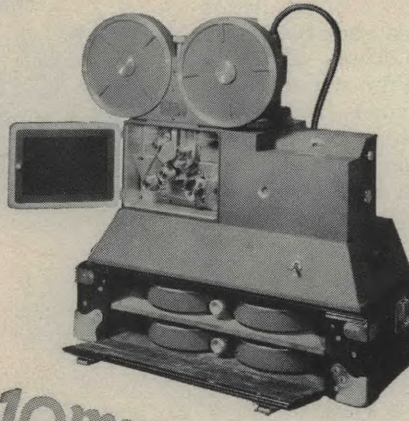

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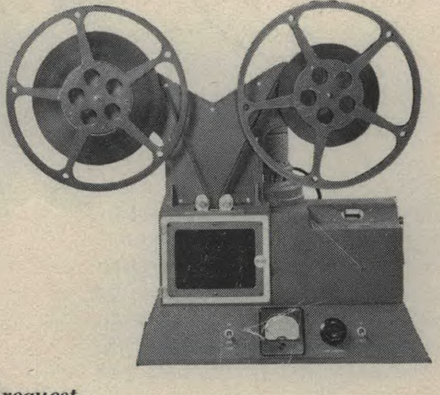

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The Society meets regularly once a month at its clubhouse at 1782 North Orange Drive, in the heart of Hollywood. On November 1, 1920, the Society established its monthly publication "American Cinematographer" which it continues to sponsor and which is now circulated in 61 countries throughout the world.

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ON THE COVER

ERNIE HALLER, A.S.C. (foreground) used the Research Council Camera Crane to advantage in shooting scenes in an airplane hangar for his current Warner Brothers' picture assignment, "Chained Lightning," which stars Humphrey Bogart and Elinore Parker. Pictured with Haller is his operator, Ellsworth Fredericks (right) and assistant, Wally Meinardus. Photo by Jack Woods.

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Hollywood
Bulletin Board

CHARLES G. CLARKE, A.S.C.—Filming T.C.F's. "Quartered City," in Berlin, Germany

REPORT FROM BERLIN—A.S.C. president, Charles G. Clarke, who is currently in Berlin to photograph "The Quartered City" for 20th Century-Fox, relays his impressions of postwar Germany in a letter addressed to fellow members of the Society:

"June 3, 1949:

"I wish I could write you a stirring article for the AMERICAN CINEMATOGRAPHER regarding photography in Germany, but the truth is I haven't done much as yet and besides it's little different from photography in any other place. Our cast hasn't come over yet and our director is writing the script, so we haven't started actual shooting.

"During the blockade when the airlift operations were heavy, we did make some airlift activity scenes for the picture. These were rushed to Hollywood for processing. Part have been returned and we have screened them here. Our time has mostly been spent in selecting locations, preparing equipment and acquainting our German crews with Hollywood equipment. I have two 20th-Century cameras and a Mitchell, while the sound man brought over complete sound recording equipment.

"My operator, Lou Kunkle, is with me but our assistants are German studio men. They are very willing and as anxious to get started as we are. Our interior scenes are to be made at the old UFA studios at Templehof—right in the heart of Berlin, adjoining the famous Templehof airfield. Much of the studio was shot up during the war and almost all of the equipment carried away. We have located some Army searchlight generators and are having some lights built here. Our grip equipment is also being built here.

"As the electric current here is 200 volts, it means we'll have to use special globes and generators. We did bring along some of the Color-Tran light outfits and a special transformer for converting the 220 volt current to their use. We expect to use these lights for many of the natural interiors we do here. So much for what we expect to do.

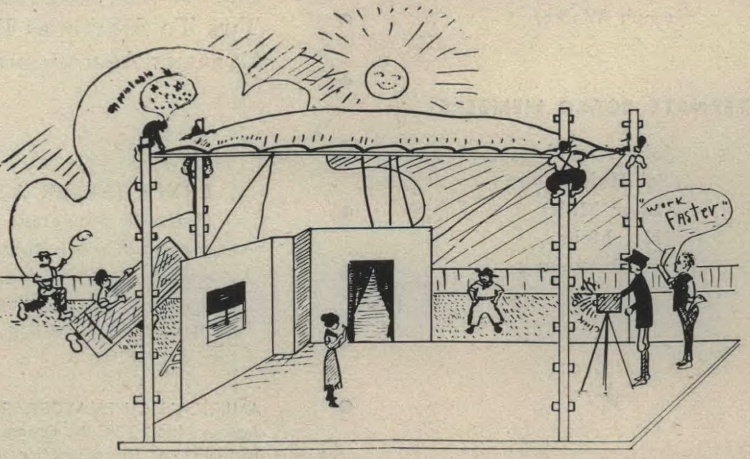
"Victor Milner is here and we have had many pleasant evenings together. Naturally we talk 'A.S.C.' At the moment he is touring southern Germany, but I see his son, Major Victor Milner, Jr., frequently—a fine boy and doing very important work here in Berlin. Compared to western Germany, Berlin is a very dreary place. There has been terrible destruction, and as the place is surrounded by Russian 'zones,' life is quite uncertain. Most of the people have left who could, so except for certain sections which escaped bombing, the streets are almost empty.

"Grotesque wrecks of buildings loom against the leaden skies which are always overcast. Of the buildings that still stand, all the window glass is gone—blasted by the concussion during wartime shelling of the city. These are boarded up or covered with cardboard salvaged from shipping cartons. The only things which appear to have survived as though nothing had happened are the trees and the flowers. These are everywhere. Wistaria climbs over ugly skeletons of buildings and bursts into bloom as though it were trying to cover the scars of war. Chestnut trees line the streets, with rose and white blossoms standing up like Christmas tree candles.

"Right now the city's few streetcars are not running because of a strike. A few omnibusses are to be seen on the streets but they are always bulging with passengers. The rest of the populace walk. Nearly everyone carries a briefcase and a bunch of flowers. About the only automobiles seen are military jeeps and cars. Because of the dearth of gasoline, there are scarcely any private cars on Berlin streets. That is Berlin today—a mere shadow of its former gay self, but still grimly carrying on.

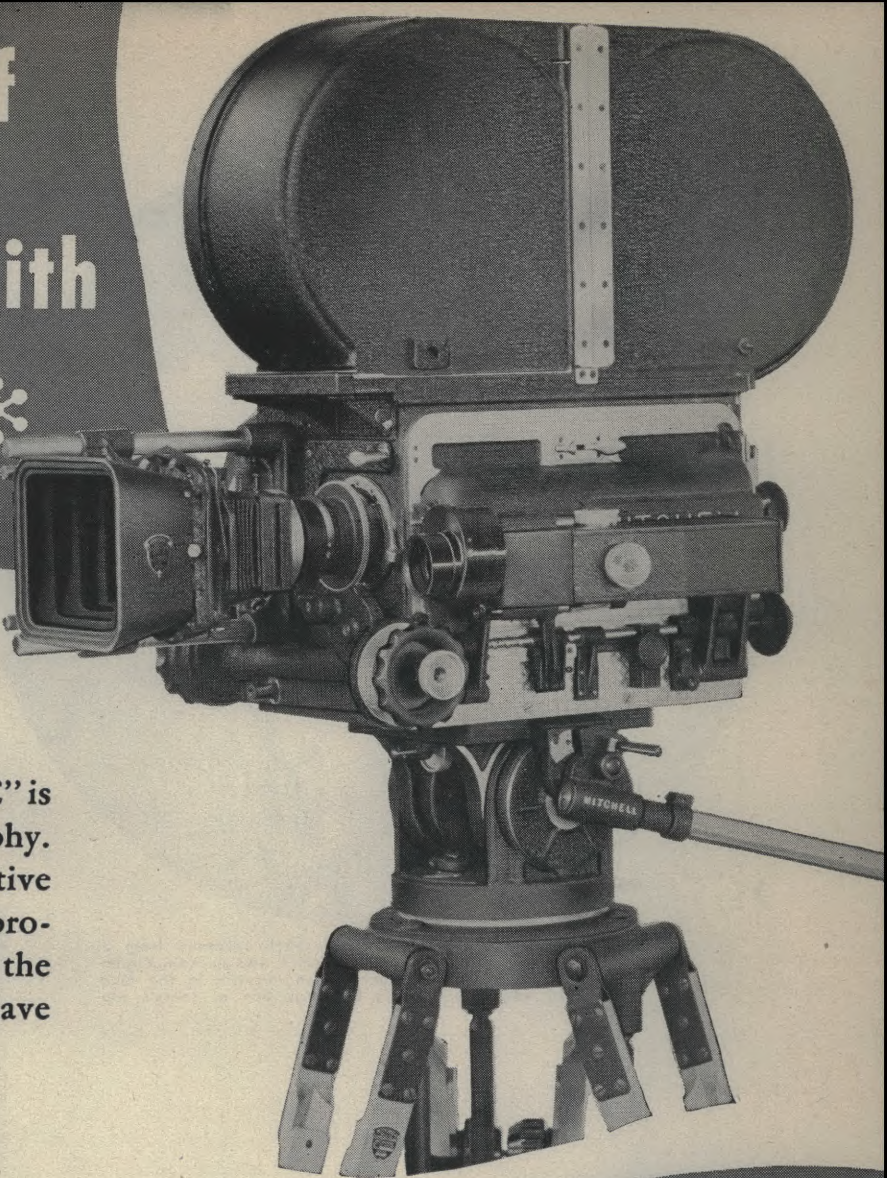
"These people are hard workers and will, one day, when their political future is secure, rebuild their beautiful country. If our 'reds' at home could only see Soviet rule and actions as they are prac-

(Continued on Page 265)


"work Faster!"

AMONG the memorabilia acquired by Gus A. Peterson, A.S.C., during his association with the old Kalem's studios in Santa Monica during early silent film days, is this sketch by a sidelines observer of picture making on an open, windswept stage. Gus says cameramen had lighting problems in those early days, too, and points to the four "gaffers" in this picture perched perilously on top of each of the four stanchions, struggling to hold the flapping diffuser in place while scene is being shot.

The great films of Today are shot with a *Mitchell* *



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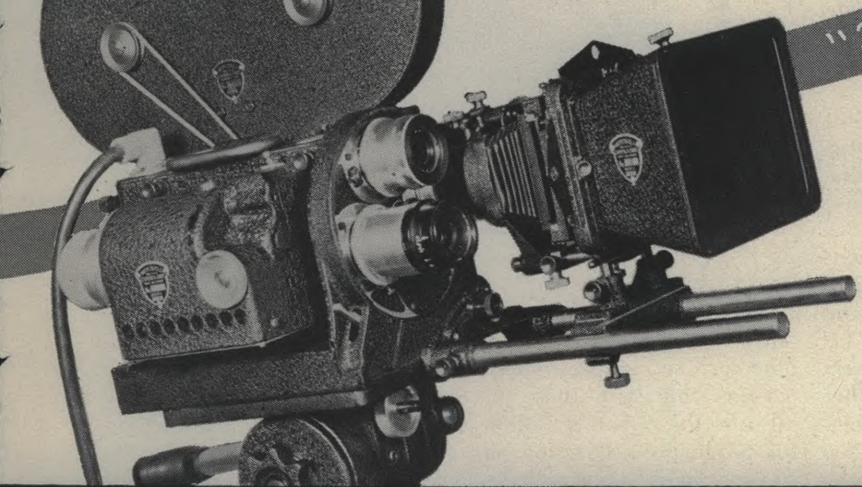

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* 85% of the motion pictures shown in theatres throughout the world are filmed with a Mitchell

CLYDE DeVINNA, A.S.C., (left) who recently returned from a filming assignment in India, found native Indian cameramen highly artistic and resourceful, accomplish miracles in the face of tremendous odds. At right is B. Deoji, one of India's top cinematographers.

Clyde DeVinna Reports On

India's Movie Industry

By CLYDE DE VINNA, A.S.C.

LIGHTING in American-made films is closely studied by the Indian camerama with the result that he achieves remarkable results considering the inadequac of his equipment. Above is well-lighted two-shot from recent film.

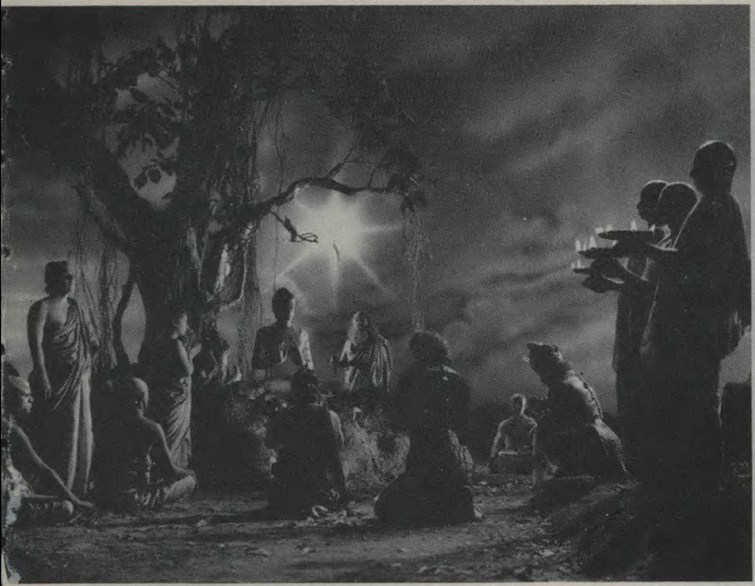
THE MOTION PICTURE industry in India is surprisingly extensive and, in many respects, tremendously interesting. A definite overall picture of it is difficult to obtain, because it is not at all centralized as we know the industry in Hollywood. These were my observations during my recent assignment in India as director of photography for Oriental-International Pictures. This company had been granted rights to photograph the Keddah or annual wild elephant roundup—the first held since the war. After somewhat hasty preparation, I was sent flying overseas to Calcutta, thence to Bombay to photograph the proceedings on Monopack.

Virtually all the producers in India function independently. There are at least 25 studios operating in the country, principally in the three major cities, Calcutta, Bombay, and Madras, but they all operate as rental concerns; none, so far as I was able to learn, produce pictures for themselves. There seems to be little or no organization in the industry, either among producers, talent, or technicians; consequently competition is keenly individual.

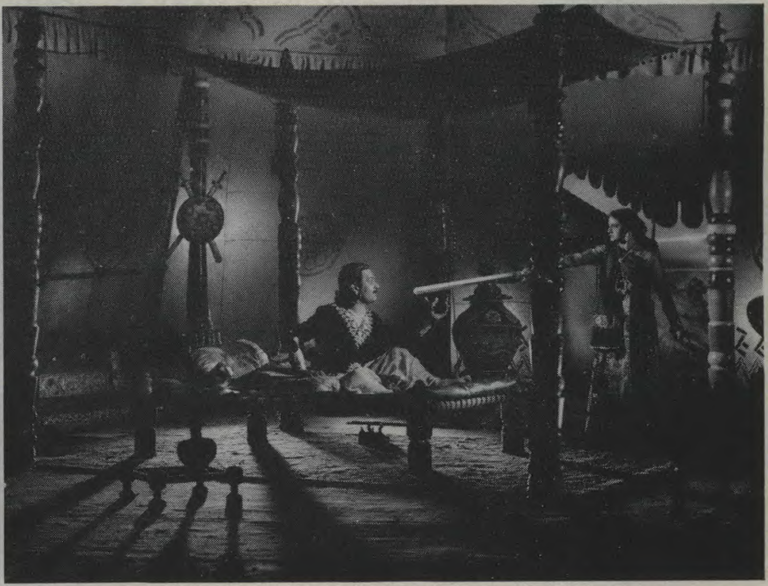
There are a number of stars, both men and women, who are prime favorites with the public and therefore in great demand, with the resultant bidding from producers boosting their salaries to figures relatively fantastic. This creates another situation a bit more difficult for us to realize: It is not unusual for certain stars, as well as leading directors and the better technicians, to be working in several pictures simultaneously!

Inquiry into this unusual state of affairs brought forth the answer: the producer who first signs the individual has priority, and each succeeding employer must make his arrangements by co-operating with those producers preceding him. This may also be the reason for other unusual features of their method of production. Exterior sets are nearly always built on the stage; there is very little location work. It is not at all unusual for a studio to work in three shifts, with three different pictures working in turn through the day and night.

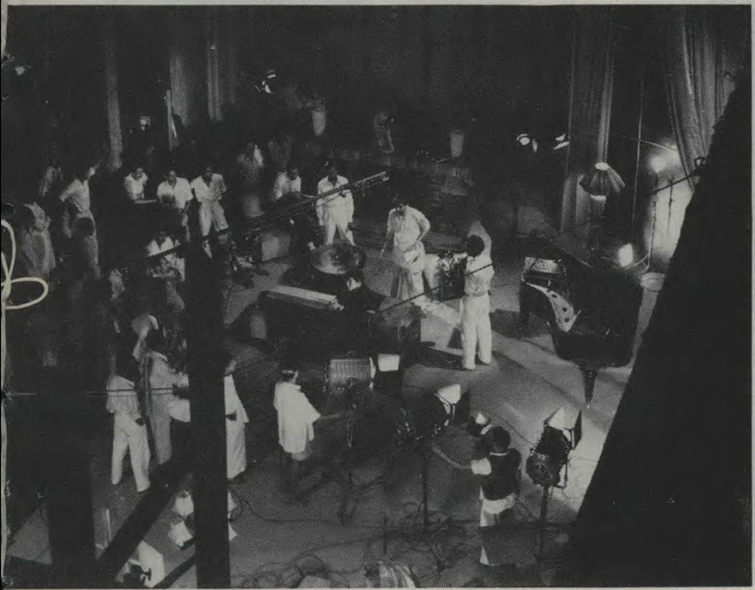
A curious custom, which is so prevalent that it almost has become a ceremony, is that which accompanies the first day of shooting on a picture. After all arrangements have been made, studio space obtained and the first set erected, the first day's shooting is scheduled. The initial shot is most carefully arranged and rehearsed, extra care being taken to see that this



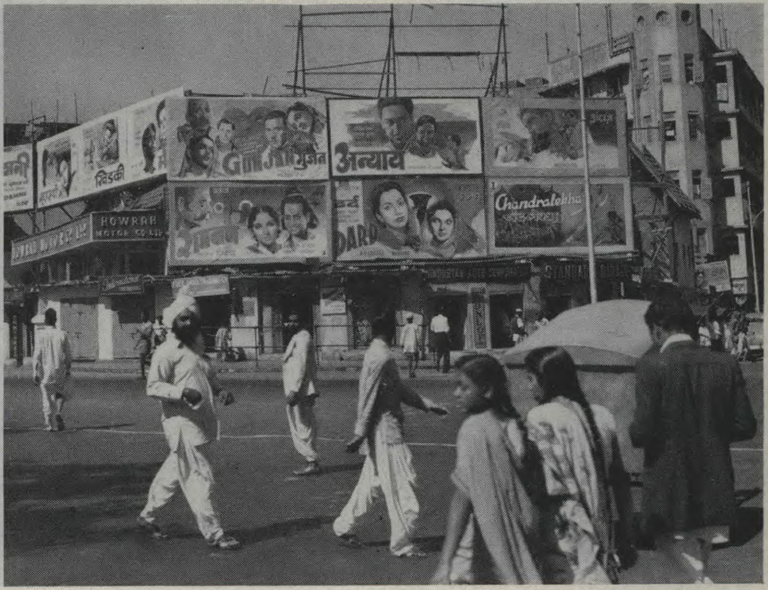
TYPICAL of the lighting technique practiced by India's top flight cameramen is this scene from the production "Amprapali," photographed by Fali Mistry, whom DeVinna calls the "Bill Daniels" of Indian cinematographers.



ANOTHER scene from "Amprapali" that demonstrates the Indian cameraman's studied use of lighting, which differs widely from American methods but nevertheless achieves a compelling and dramatic pictorial effect.



A TYPICAL interior in a Bombay studio. There is little or no overhead lighting due to the lack of necessary equipment. Also limited power is a big problem. All studio lights draw current from domestic power lines.



AN INTERESTING highlight of India's movie industry is the wide use of signboards to advertise native pictures. The signs, which are everywhere, are individually handpainted and lettered instead of lithographed as in the U.S.

particular scene goes smoothly, for nothing must go wrong with this initial effort. When the camera finally turns and the take is made, work is called off for the day and the producer, cast, crew and friends all join in a feast and a general celebration of good will. This is to insure not only the successful production of the picture but its favorable reception by the public upon its release. Doubtless some similar plan would find great favor with our own crews in Hollywood.

The cameraman of India is a quite amazing person; the more I saw of him and his efforts at the different studios I was fortunate enough to visit, the more I marveled. He has no such well organized crews as prevail under our system of production; he is about as nearly a one-man organization as is possible, and how he manages such uniformly good results with the conditions under which he works is beyond my understanding.

If definite efforts were to be made to put more handicaps in his way, I don't know just how it could be managed. He has to supervise and check makeups, hairdresses, wardrobe, sets, and practically everything else connected with the picture; he lights his own sets, literally placing and adjusting each unit before turning it over to the "lamp coolies" (their term for electricians). He sets and operates his own camera; while he has plenty of semi-skilled help at his command, he usually finds it advantageous to do nearly everything himself.

His lighting equipment is of fair quality, but scant as to numbers of units. The average set in India is shot with less

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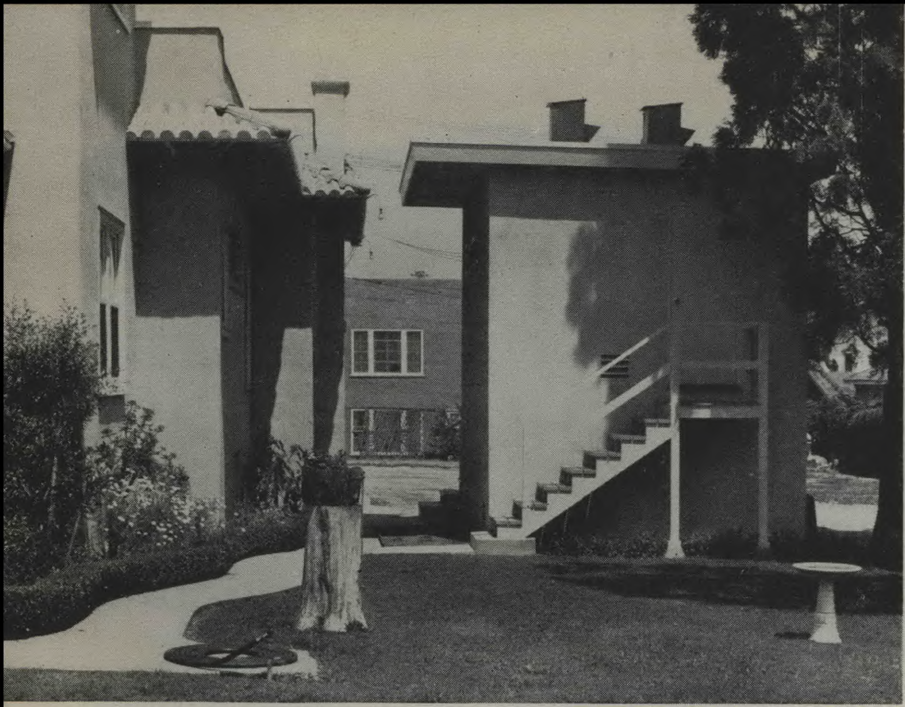
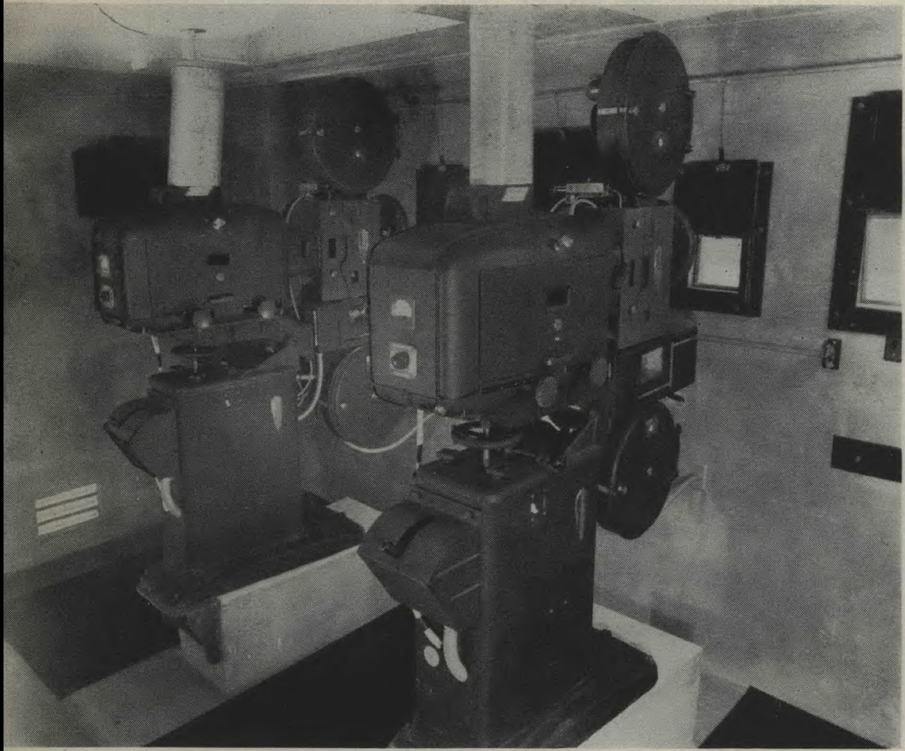


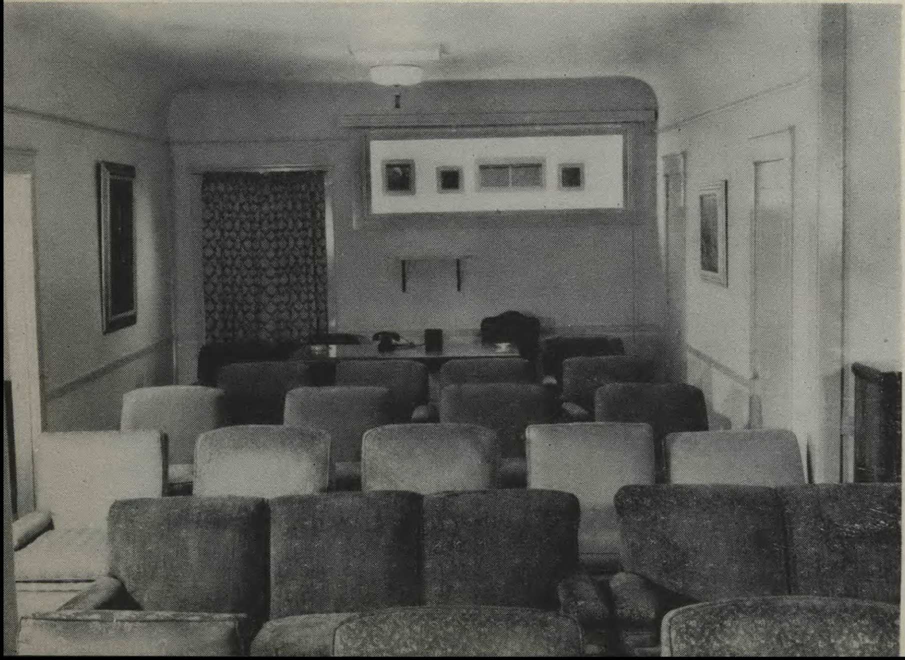
1

1 — To overcome building code restrictions, separate projection booth was built adjacent to A.S.C. clubhouse. Pictures are projected through window to screen in clubhouse lounge.



2

2 — Interior of modern, fireproof projection booth shows latest type R.C.A.-Brenkert projection machines which give a brilliant screen image at throw of 60 feet.



3

3 — Looking toward projection booth from interior of clubhouse lounge. Seating capacity is 100. Comfortable club chairs and divans provide bulk of seating. Intercom phone and remote volume control are at rear.

The A.S.C's. New

Comfortable club-like atmosphere is salient feature of unique projection installation in Society's Hollywood headquarters.

THE SCREENING of motion pictures at the American Society of Cinematographer's clubhouse is a project that has long been high on the Society's planning program. Recently the Society has placed increasing importance on the study of the technical problems of cinematography, and the development of new cinematic techniques applying to present day film production. Thus it found it imperative to be able to project selected films before its membership as a means of study and as a source of discussion material at its monthly technical meetings. Also considered was the convenience of being able to preview films photographed by its members.

After considerable planning and surveys made by various contractors, the Board of Directors finally solved the many problems posed by building code restrictions and fire ordinances with a unique plan to erect a modern, fireproof projection booth adjacent to the clubhouse. Thus motion pictures could be projected through a window and onto a screen erected on the north wall in the club lounge. Several months ago the plan was approved, the contract let, and on May 17th the Society's new "theatre" was dedicated with a screening the *Champion*. It is important to note that both picture and sound quality conforms with the highest standards established for the best motion picture theatres.

Credit for this, of course, is due the excellent R.C.A. projection and sound equipment. Within the air-conditioned projection booth are two latest type R.C.A.-Brenkert high-intensity arc 35mm. sound-film projectors augmented by the newest type R.C.A. sound amplifiers. In addition, this equipment is fitted

Preview Theatre

By FREDERICH FOSTER

Photos by Felix and Nikki Zelenka

with all the latest gadgets and doodads that make the projectionist's job fool-proof as well as something of a cinch. Included is a phonograph turntable for playing music or transcriptions during intermissions and before the start of a show. Monitor speakers afford a constant check on sound quality and volume of both picture and records.

Within the clubhouse lounge, which becomes the theatre when pictures are shown, is a 7 by 9 foot R.C.A. "Snowwhite" projection screen. This is artistically framed in a shadowbox suspended from an overhead track. This latter feature makes it possible to position the screen in center of wall for projection, and to quickly slide it out of the way when not in use. Decorative draw curtains of soft gold fabric conceal the screen and its frame when in this position.

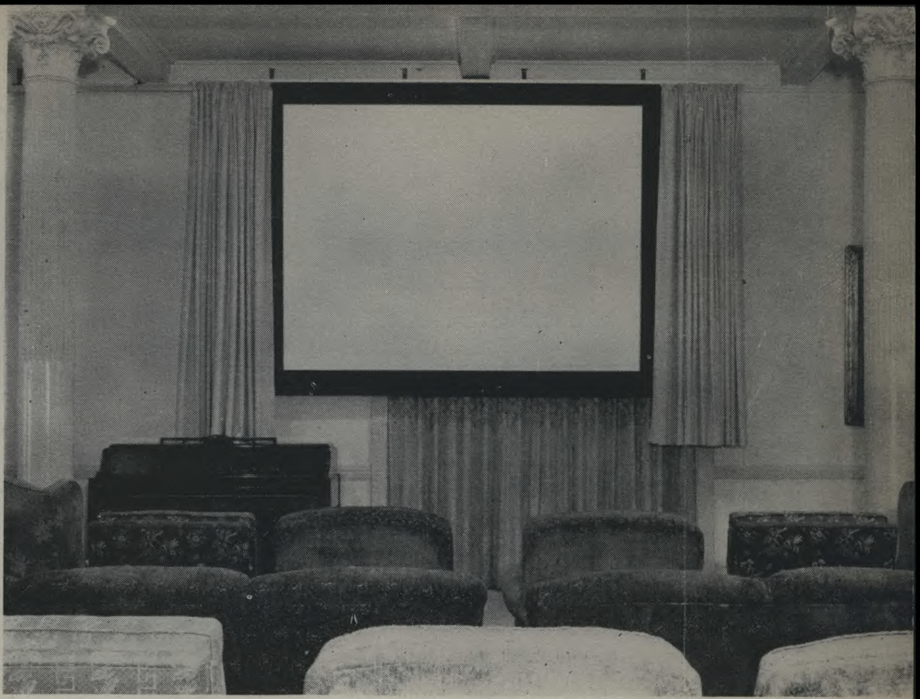
The speaker of special design is housed in a portable cabinet which is rolled out of a wall niche and into position beneath the screen when pictures are to be shown.

A table in the lounge is provided with the usual preview theatre facilities—remote volume control panel and intercom phone to the projection booth.

Comfortable lounge chairs and divans provide luxury seating for upwards of 50 persons, and seating for 50 more or a total of 100 can be provided with the addition of rental chairs. The screen throw is 60 feet and the screen is so positioned as to afford easy observation of pictures from any position within the lounge.

The facilities for projecting 16mm. sound films also have been provided for with installation in the booth of the latest model Bell

(Continued on Page 262)



4

4 — Carefully balanced high-intensity arc light assures projection quality on 7 by 9 foot screen equalling that found in the better modern motion picture houses.

5

5 — The comfortable appointments of the A.S.C. clubhouse lounge provide an ideal setting for informal get-together of club members before and after screening of films.

6

6 — And for refreshments there is the bar adjoining the lounge. Also there is a well-equipped kitchen wherein on occasions a cateress provides tasty buffet snacks or a well-rounded dinner menu for an A.S.C. banquet.

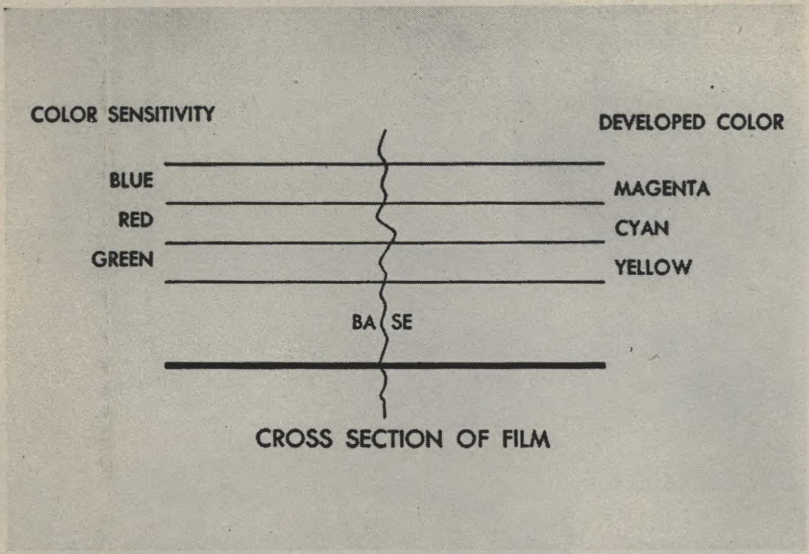


FIG. 1 — Du Pont's new release positive color film consists of three emulsion layers superimposed on one side of standard cine base. Arrangement of layers departs from that heretofore used in monopack films. The important magenta layer is on top while the least important yellow layer is on the bottom. This contributes to sharpness of definition.

DuPont's New Color Film

By V. B. SEASE, A.S.C.

Photo Products Dept., E. I. du Pont de Nemours & Co.

DU PONT HAS produced a color release positive stock suitable for making color prints in the professional motion picture field. It is designed to be printed from three black and white separation negatives and to be developed in color during a single passage through a developing machine of conventional construction. The film has a monopack structure consisting of three emulsion layers superimposed on one side of standard cine film base. Each layer embodies in a unique manner an appropriate colorless dye generator capable of forming a dye image under development.

The mechanism of color forming development in its original conception is rather simple. When a developing agent reduces silver halide the agent itself is oxidized. If certain types of developing agents are chosen and a suitable color-forming compound is present, the oxidized product immediately couples with the color former to produce a dye in situ. The "pyro stain" encountered by early photographers was simply oxidized pyro coupling with itself to form a yellow insoluble dye on the silver image as it developed.

An interesting proposal was made as early as 1912 to utilize color formers for the production of color pictures by coating three emulsions on one support according to the following diagram:

BLUE SENSITIVE EMULSION — YELLOW COLOR FORMER
GREEN " " — MAGENTA " "
RED " " — CYAN " "
SUPPORT

This proposal, though theoretically sound, failed to function because the available color formers had an appreciable solubility in water which caused them to migrate into all the layers, especially during coating and processing.

(Continued on Page 257)

Translucent Phot

GIANT PHOTO backgrounds on a single, seamless, translucent sheet of material and made from a single negative have long been the cinematographer's and the art director's ideal, but until recently no one had been able to solve the numerous problems involved. It remained for M. B. Paul, veteran motion picture photographer, to devise a satisfactory method and today he is turning out photo backgrounds for Hollywood movie studios that not only are giant size but translucent and in color as well.

Giant photo backgrounds have been used by the studios for years, but these have been created by making the enlargement in sections, then painstakingly matching and pasting the sections on a large sheet of fabric to form the whole picture. Paul's method produces single enlargements up to 20 by 45 feet.

It was Paul's newly developed process that made possible the huge, realistic photo background of New York's skyline that backdropped the sculptress' studio in *Champion*. Other recent productions in which Paul's backgrounds were used are *Red Light, Band Wagon,* and *Fighting Plainsman.*

Paul is believed to be the first man to develop a satisfactory method of applying sensitized emulsion evenly distributed on large scale translucent surfaces and this, together with his process for making seamless translucent backing material up to 45 feet in width, is the key to his successful method of producing giant photo backgrounds. To make a background, a sheet of this material is pierced with grommets around the edges, then laced to a large perpendicular wooden frame and stretched taut. Then it is sensitized by spraying an emulsion over the surface with an airgun in complete darkness. The picture negative is then projected onto the sensitized sheet by a special condenser-type photo enlarger, while Paul controls exposure by use of dodging panels. The resultant image is then developed and fixed in huge tanks.

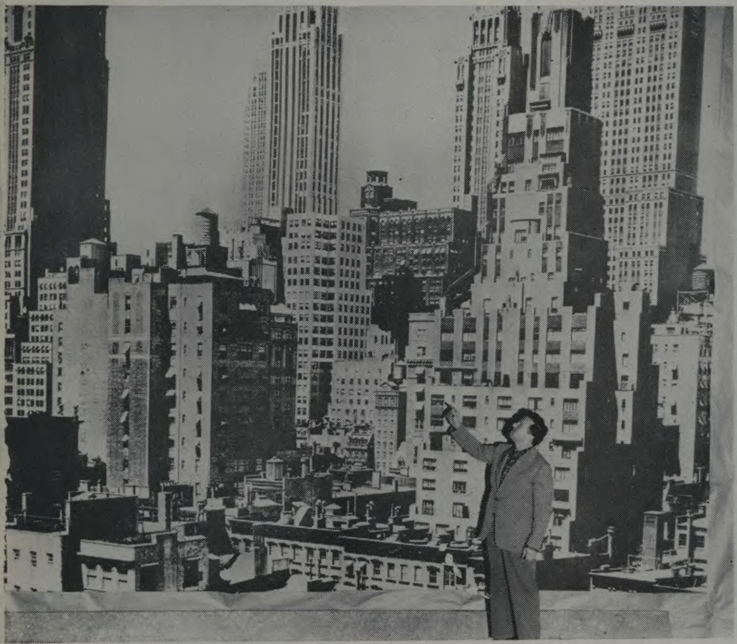
This produces an enormous black and white picture, clear and sharp and with

(Continued on Page 259)

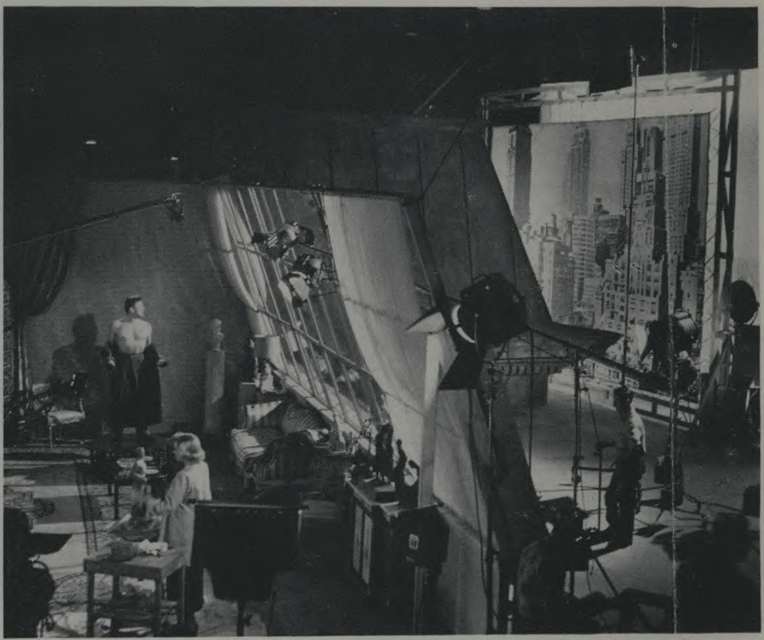
Backgrounds Cut Production Costs

New giant photo backgrounds are made in one piece,
e seamless and wrinkle-proof, and may be
used for either black and white or color photography.

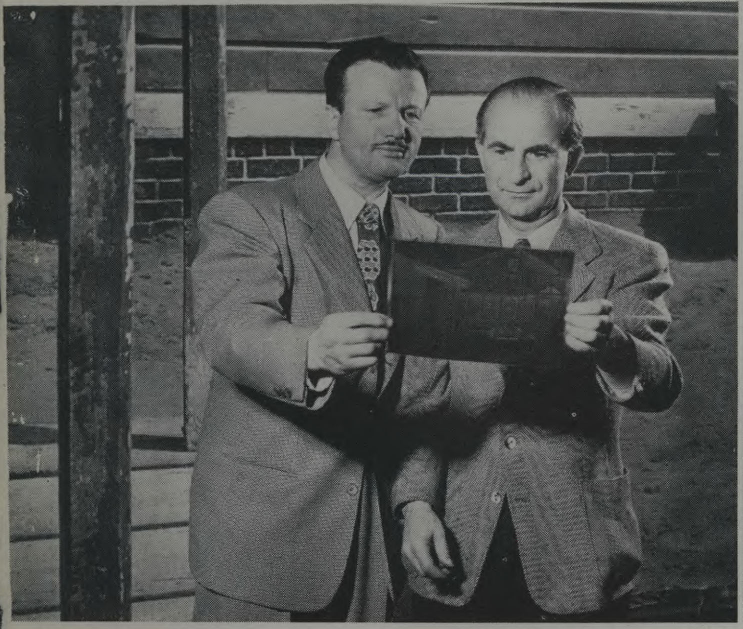
By PHIL TANNURA, A.S.C.



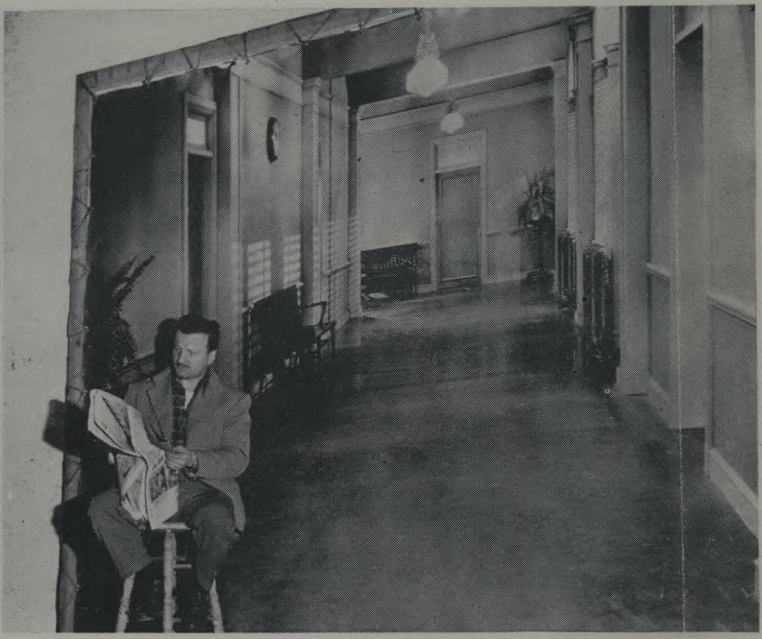
M. B. PAUL, photo background specialist, stands before giant photo enlargement of New York City skyline, which was used on set of sculptress' studio in the Screen Plays' production, "Champion," pictured at right.



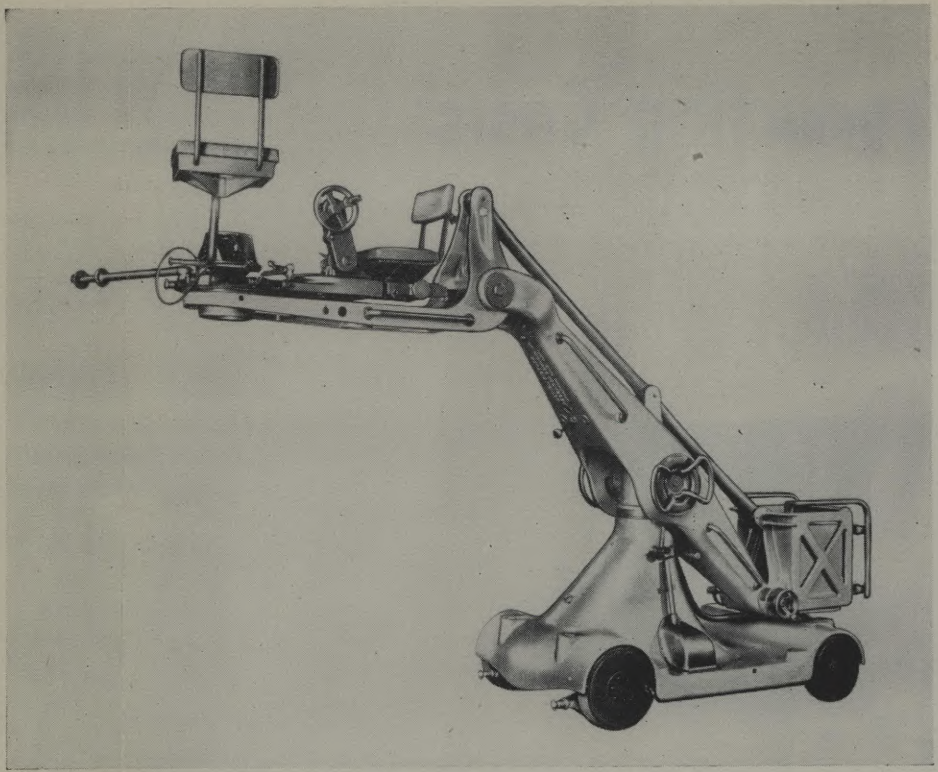
HOW enlargement was used in conjunction with the "Champion" set is shown above at far right. It was illuminated both front and rear — the latter by reflection of light from huge white backdrop.



STANDING before recently completed photo background for the "Fighting Plainsman," filmed in Cinecolor, M. B. Paul (left) and the author compare details with the 8 by 10 negative from which it was made.



PERSPECTIVE of Paul's backgrounds is demonstrated here as he sits before photo enlargement of office building corridor. Here a single photo enlargement saved producer cost of building a set or moving to location to make the shot.



STREAMLINED, scientifically balanced Research Council Camera Crane, with camera installed, will pass through a door 36" wide by 6' high, permitting easy movement from location to location. Camera table may be panned a full 340 degrees by operating a handwheel, and locked as desired.

The Research Council Camera Crane

New crane affords lens heights from two to ten feet, negotiates narrow doorways without need for removing camera or equipment.

By FRANK E. LYON

EVER SINCE the introduction of the first crude camera crane in motion picture photography, there has been continuing development and improvement of the crane by technicians in the various studios. Nearly every studio has designed and built what it believed was the ultimate in camera cranes, yet as time went on, still better improvements were developed and incorporated into each crane. In time there were in existence about an even dozen different models, each marked by at least one outstanding feature.

Recently the Motion Picture Research Council, Inc., a corporation formed some time ago by all the major producing companies of Hollywood, developed a camera crane which incorporates all the best features of the cranes designed earlier by the various studios themselves. The Research Council Crane became one of the major projects of the Council's program to improve motion picture studio techniques and it has since been adopted as standard equipment by all the member studios.

Through collaboration of the leading technicians of the major Hollywood studios, whose practical and technological recommendations were correlated by the Motion Picture Research Council, Inc., the Houston Corporation of Los Angeles is now producing these cranes. Meeting with immediate success in the Hollywood studios, the cranes are now being exported to meet the demands from many parts of the world.

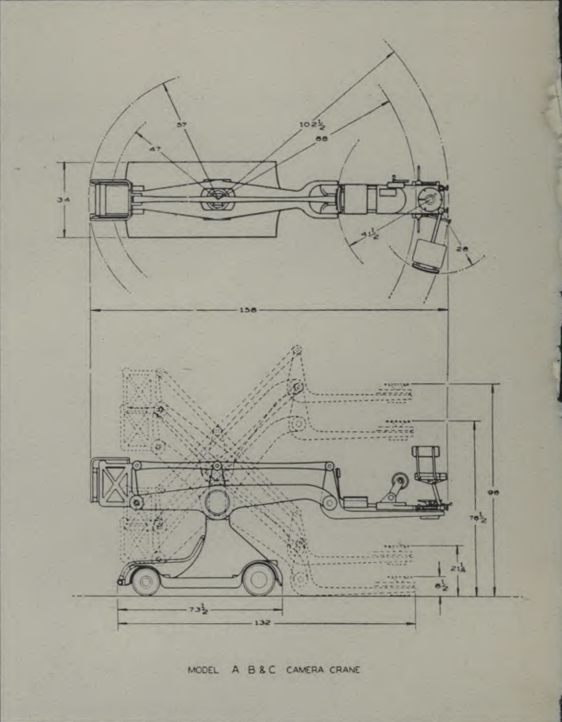
The Research Council cranes provide studio cameramen with the means for easily obtaining the dramatic viewing angles, the smooth panning of large scenes, the approaches and retreats that add drama, life and interest to modern motion picture production. The cranes afford a continuously variable lens height from 2 to 10 feet, 340-degree panning around the camera axis and a full 360-degree panning around the crane axis. The combination of possible viewing angles and camera movements, shown in the illustration, is almost unlimited, and gives the cameraman many opportunities to develop new techniques and with a minimum of equipment.

The crane, with a camera installed, will pass through a door 36 inches wide by 6 feet high, permitting easy movement from location to location without disassembly and reinstallation of camera or equipment. The cranes offer many other new features that make for simplicity of operation and increased safety.

The camera table may be panned through its 340-degree panning angle by operating a handwheel convenient to the operative cameraman, and can be locked into any desired position by a friction brake. A special safety tilt mechanism locks the boom in a fixed position in case one of the operators steps off the platform, offsetting the tendency of any dangerous "see-saw" action, due to sudden boom unbalance.

Absolute balance is obtained with counterweights and a vernier counterweight inside the arm. The center post is a telescoping tube permitting the boom to be panned a full 360-degrees and

(Continued on Page 252)



THE COMBINATION of possible viewing angles and camera movements is almost unlimited, as shown in above diagram, and afford the cameraman opportunities to develop many new and unusual photographic effects.

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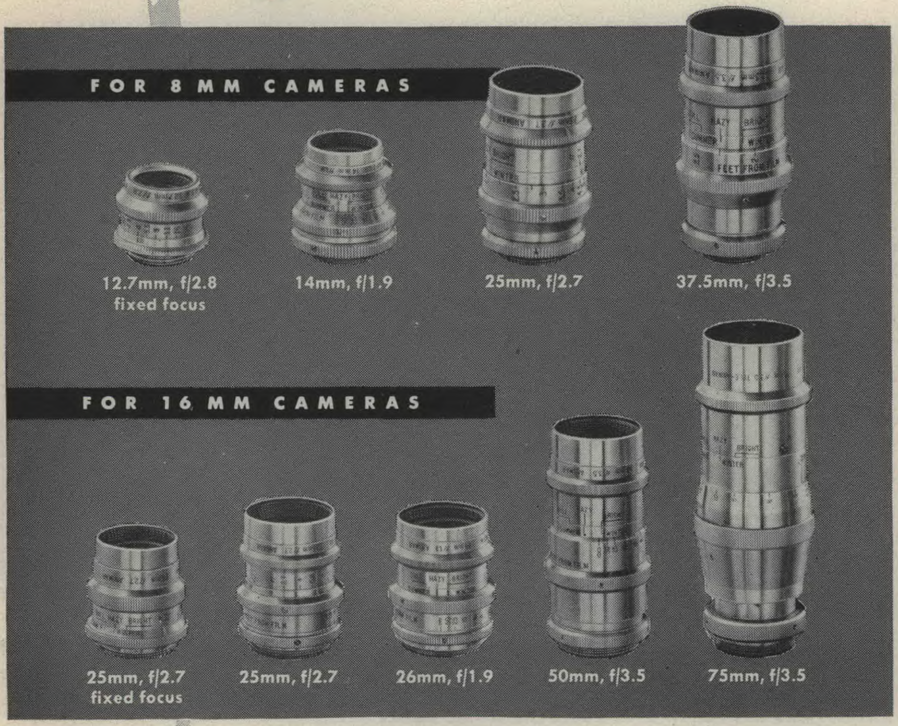
9 NEW Bausch & Lomb CINÉ LENSES



Now You Can Have TOP IMAGE QUALITY in Ciné Lenses

Now, it's Bausch & Lomb Animar Lenses . . . for *professional* quality in *your* movies. For many years, the world's leading cameramen in the big name studios of Hollywood have preferred Bausch & Lomb Baltar Lenses. Hollywood's finest motion pictures have been filmed with Baltars.

All of the experienced lens design and manufacturing know-how, accumulated by Bausch & Lomb in producing lenses for super-critical motion picture cameramen, has gone into the development of the new Animar series of lenses.

Now you can have crisp, sparkling, brilliant images . . . TOP IMAGE QUALITY . . . that films movies in their full magnificence of fine detail, subtle tone, and brilliant color. *Use* Bausch & Lomb Animar Lenses.

"For professional quality in Your movies"

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BAUSCH & LOMB
8mm and 16mm
ANIMAR LENSES

The Hollywood Closeup

By JOHN ALTON, A.S.C.

Reprinted from his new book, "Painting With Light," Copyright 1949 by The MacMillan Company.

THE OLD LIKE to look young, the young younger. We have all heard people say they could not have their pictures taken because they were not *photogenic*. This silly obsession has proved to be a fallacy. Just look at the gorgeous close-ups of the stars in Hollywood films. True, most of the stars are really beautiful; but those who are not are made so with the aid of an artistic hairdo, a touch of magic make-up, and the unquestionably hypnotic power of carefully distributed lights and shadows. Not all of us are born beautiful. Good photography can supply what nature has sometimes failed to give us: beauty, charm, good posture.

It is much more difficult to light for movies than for still photography. Therefore, we shall use the former for the purpose of illustration. Movie lighting technique can be applied to any kind of photography. If you can light for movies, you can light, period.

Ages ago, the cave-scratchers made portraits of their favorites. The Egyptians carved them on stone walls. Silhouette invented the making of a likeness that was named after him. Stieglitz, the great American photographic artist, made outstanding portraits long ago; but it took the film industry a long time to invent the motion picture close-up.

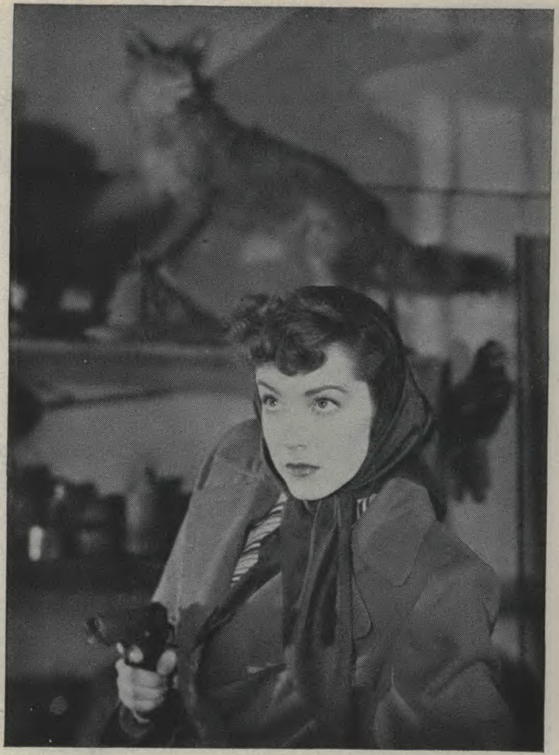

FIG. 1 — When composing a closeup, special attention should be given background. There should be no distracting lights or objects "growing out of the head," as in the picture above.

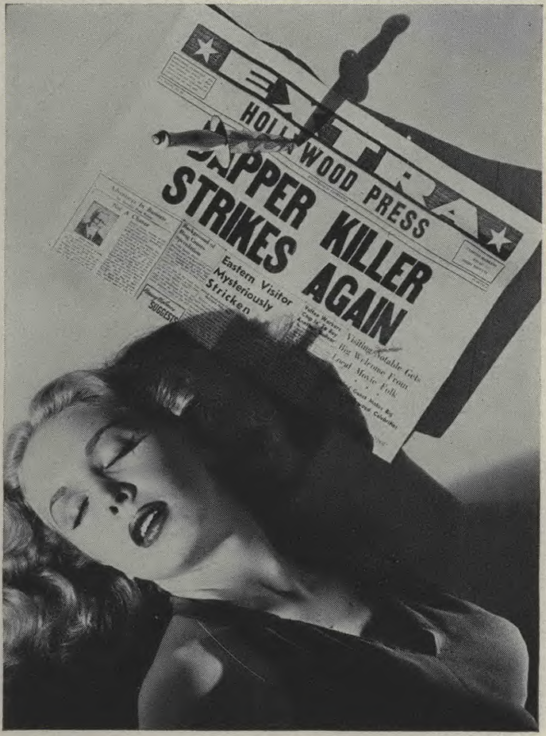
EXTRA
HOLLYWOOD PRESS
RIPPER KILLER STRIKES AGAIN
Eastern Visitor Mysteriously Stricken

FIG. 2 — A head can be against the side line of the picture when, for example, there is the suggestion of fear or menace behind the player or subject.

For years, action films were photographed from a distance. All you could see on the screen were clouds of dust. While screening such a film, some people suddenly felt that there was something wrong. They wanted to see more of the actors' faces. They ordered retakes with more light poured on them. The result was burned-up, overlit faces, but they were still too far away for facial expression to be appreciated.

It took cinematographers years of heated discussion to prove a simple truth: that in order to make faces distinguishable, it is a mistake to overlight long shots. In life when we want to speak to a person, we approach him. Why not do the same in motion pictures? Seats in theatres are fastened down. When the audience feels the desire to see more of an actor, it cannot possibly move closer to the screen. It is far easier to bring the actor closer to the audience by cutting or dollying to a closer view of him, featuring the face only, where a twitch of a muscle or a wink of an eye can sometimes tell the story. On the legitimate stage, an electromagnetic contact is established between the actor and audience. This cannot be done in motion picture theatres. The best we can do is a one-way transmission of energy from the screen to the audience. Hence the importance of close-ups.

As far as I know, there are no rules or laws for the creation of close-ups or portraits. It takes time, patience, good taste, and a sense of balance. However, if we closely analyze pictures of great masters of light, we find that to illuminate a beautiful close-up, we must observe the following:

1. Angles
2. Size
3. Composition—foreground and background
4. Theme—emphasis on center of interest

(Continued on Page 263)

Cine Clubbers Lend A Hand

Long Beach Movie Amateurs Contribute Photography For Minister's 16mm. Film Promoting Religious Education.

By J. WESLEY NEAL

DID YOU ever see a plumber try to put on plaster? Then you know how I felt recently when the Long Beach, California, Ministerial Union asked me to write a script and help produce a 16mm. film telling the story of Week Day Released Time Religious Education.

There has been a lot of controversy over the question of whether or not this type of religious training is in violation of the Constitution of the United States. The aim of the Ministerial Union was to show, by means of a motion picture, that the California plan is in complete harmony with the laws of our land. Furthermore, inasmuch as Released Time is completely dependent upon voluntary financial support, it was believed that such a film would do much to stimulate contributions.

The first thought of the Ministerial Union was to enlist the aid of some member of the Long Beach Cinema Club to photograph the picture. This club has established an enviable record in the production of prize-winning club films and films for civic organizations, and it is natural for people in this city today to think of this club whenever a 16mm. film is being planned.

"LET THE CHILDREN COME TO ME, AND DO NOT HINDER THEM"

DIRECTING scene for "Let Them Come," 16mm. amateur movie production, is J. Wesley Neal (center). Behind the Bolex camera is Earl Everley, Long Beach Cinema Club movie maker. At right is Jack Lloyd, another club member, who assisted with the direction and editing of the picture.

POINTING UP importance of religious education as child delinquency deterrent, "Let Them Come" shows transformation of a boy from habitual truant to good citizen and church-goer.

Earl Everley, one of the club's leading cine photographers, whose production of "The Farmer's Daughter" won an award in a national contest early this year, offered to shoot the picture for us. "I'd be tickled to death to help you out," he said.

And when Everley got that gleam in his eye that most avid cinefilmers get when there's an interesting picture to be filmed, a formidable group of his cine club associates offered to help with the picture, too. When Everley was forced to relinquish the camera, shortly after production started, Jack Lloyd and Leonard Graham, of the Long Beach Cinema Club, carried on with the photography. The assignment injected a new interest in movie making for Graham, who is a busy investment broker. Up until now, he had not been too active in the club because of the press of business. We used his office for one of the scenes and persuaded him to take an acting part. After this, he became so engrossed in the production that he placed his extensive photographic and editing equipment at our disposal which greatly expedited completion of the picture.

I had had considerable experience as a writer-producer for radio but had never so much as seen a movie script. (That

(Continued on Page 253)

About getting that "theater look" into your home movies!

It takes more than a warm, smiling subject to make a good movie sequence.

You need sparkle, brilliance, plenty of contrast. You need what we call that "theater look" of the professionals.

And the surest way to get it in your home movies is to take them on Ansco Hypan Film!

For this film has the extremely fine grain and sparkling contrast that bring sharp, crisp images to your movie screen . . . images that stand out with snap and brilliance.

You can get Ansco Hypan Film in both 8mm and 16mm sizes. Ask your dealer for some today. It may be a big step toward putting your personal movies in the expert class. **Ansco, Binghamton, New York.** A Division of General Aniline & Film Corporation. *"From Research To Reality."*

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The ANIMARS

A new series of lenses for 8mm. and 16mm. cine cameras

By JOHN D. HAYES and DR. K. PESTRECOV, A.S.C.
Scientific Bureau, Bausch & Lomb Optical Co., Rochester, N.Y.

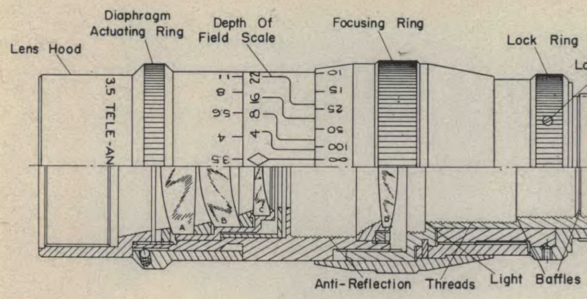


Fig. 1 — 37.5mm. f/3.5 Animar

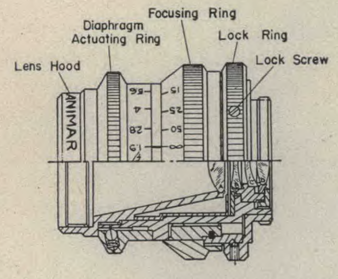


Fig. 2 — 14mm. f/1.9 Animar

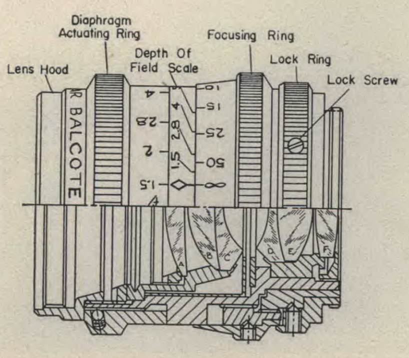


Fig. 3 — 25mm. f/1.5 Animar

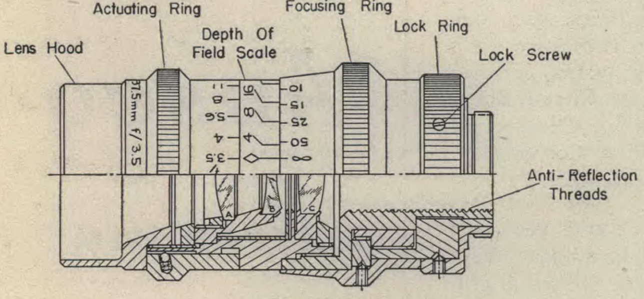


Fig. 4 — 75mm. f/3.5 Tele-Animar

DURING THE last several years the Bausch & Lomb Optical Company has produced and delivered to the users of eight and sixteen millimeter motion picture cameras large quantities of the 12.7mm. f/2.8, 25mm. f/2.7 and 26mm. f/1.9 Animar lenses. The enthusiastic acceptance of these lenses coupled with the "mushroom-like" growth in popularity of this branch of photography in the semi-professional and amateur fields has provided the impetus for the design of additional Animar lenses. These additional lenses have been designed to fill the ever growing needs of these photographers.

The Animar series of lenses as listed in Table I give the eight millimeter photographer a choice of lenses ranging from the so-called "standard lens" (12.7mm.) to the popularly termed 3X telephoto (37.5mm.). For the sixteen millimeter photographer the variety of lenses ranges from the "wide angle" (15mm.) lens to the 100mm., so-called 4X telephoto. Lenses of speeds as great as f/1.5 are available to the user of either the eight millimeter or the sixteen millimeter camera.

Although the lenses for each camera size were designed specifically for the angular coverage required by that camera, any of the lenses for the sixteen millimeter camera may be used with equally excellent results on any eight millimeter camera. It is necessary, of course, to make use of a threaded conversion adapter to properly mount the sixteen millimeter lens on the eight millimeter camera.

Despite the fact that much of the equipment for eight and sixteen millimeter photography was designed for amateur use with the ultimate cost being one of the principal guiding considerations, this equipment is in many cases of such mechanical excellence, that, when it is properly used, the grain size of the emulsion itself may become the prime limitation of that equipment. It is, therefore, necessary that the Animar lenses to be used on this equipment be extremely well corrected, high quality lenses. In addition, since these Animar lenses are used primarily by the semi-professional and amateur photographer, they should be and are moderately priced.

TABLE I

The Animar Series of Bausch & Lomb Lenses for 8mm, and 16mm. Motion Picture Cameras

For 8mm. Cameras			For 16mm. Cameras		
Focal length, mm.	f/ number	Diagonal coverage, degrees*	Focal length, mm.	f/ number	Diagonal coverage, degrees*
12.7	2.8	24.3	15	3.5	43.8
14	1.9	22.1	25	1.5	27.1
15	1.5	20.6	25	2.7	27.1
25	2.7	12.5	26	1.9	26.1
37.5	3.5	8.3	50	3.5	13.7
			75**	3.5	9.2
			100**	3.5	6.9

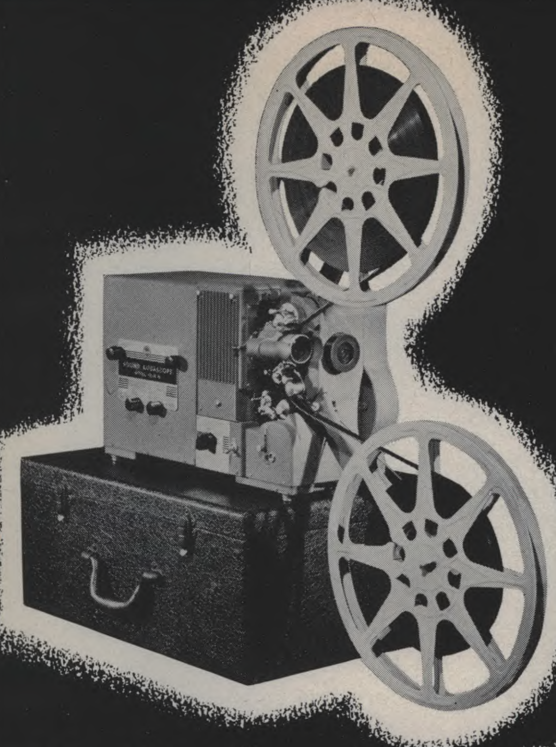
* Based on the projection aperture.

** Named Tele-Animars.

(Continued on Page 254)

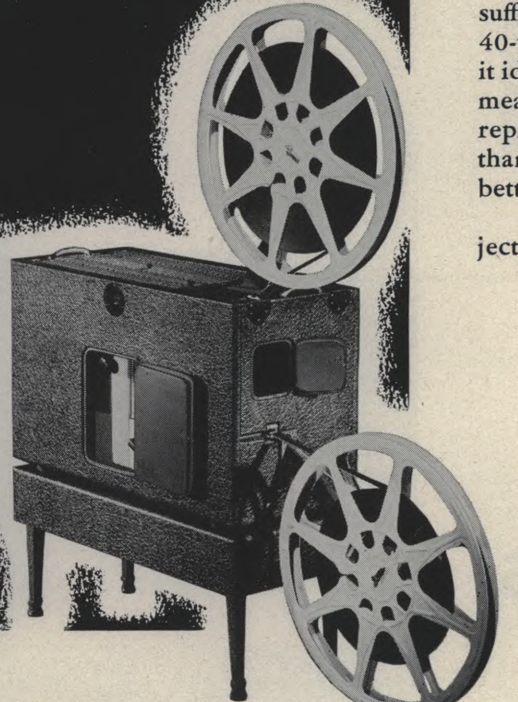
SUPERB OPTICS . . .
UNSURPASSED SOUND ★

SOUND KODASCOPE PROJECTORS



FS-10-N

for sound shows
in homes and
small auditoriums



FB-40

capable also
of showings before
sizable audiences

Two fine Sound Kodascope Projectors to show your films brilliantly . . . with wonderful detail and clarity . . . with unmatched sound quality and tonal range.

Similar in basic features—like the three detailed below—FS-10-N and FB-40 differ in amplifier output. FS-10-N's Single-Speaker Unit handles 10 watts of power—ample for homes and clubrooms. The Twin-Speaker Unit increases FS-10-N's range—the two 12-inch speakers accommodate its full output . . . and let you show sound films in small auditoriums as well.

If, however, your need is for a projector that provides power sufficient for large auditoriums, too—FB-40 is your outfit. Its 40-watt output—*unequalled by any other portable projector*—makes it ideal for such sound showings. But FB-40's usefulness is by no means limited to auditorium projection. Because any sound reproduction is improved when the amplifier is driven at less than full capacity, FB-40's vast reserve contributes directly to better sound *at all volume levels.*

Plan to see your Kodak dealer soon about these fine projection outfits...Sound Kodascope FS-10-N and FB-40 Projectors.

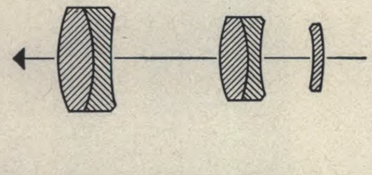
NOW at new LOW prices . . .

Both projectors supplied with 750-watt lamp, Kodak Projection Ektanon 2-inch f/1.6 Lumenized Lens, complete in two cases:

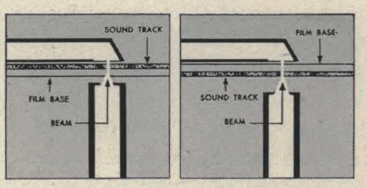
FS-10-N with Single-Speaker Unit	$345
with Twin-Speaker Unit	395
FB-40 with Twin-Speaker Unit	495

★SOUND KODASCOPE PROJECTORS Give You ALL THREE of These Important Features

FLICKERLESS MOVIES The three-bladed shutter makes a complete revolution every frame . . . produces 72 light interruptions per second at sound speed. As a result, your screenings are free from flicker even at *maximum* brightness—far beyond the five-foot-lambert minimum of acceptability. Here's a truly remarkable safety factor—screenings can have a brightness in excess of a *thousand* foot-lamberts without producing distracting flicker!



OVER-ALL SHARPNESS Integral with the standard *f*/1.6 projection lens is Kodak's unique field flattener . . . an optical device that serves to correct the curved image normally projected by Petzval-type projection lenses, so that the whole image comes into sharp focus at the same plane. You'll see the result on your screen—unsurpassed uniformity of definition. Your movies are as you like them—sharp in the center . . . sharp in every corner!



TOP TONAL QUALITY The Fidelity Control makes possible reproducing the full tonal scale—especially the hard-to-hold "highs" that are so essential to intelligibility of speech . . . naturalness of music. Whether the emulsion is threaded toward or away from the light beam as in the sketches above...whether you're running originals, 16mm. prints, or reductions from 35mm. film—the Fidelity Control permits easy, accurate focus of the scanning beam.

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Kodak

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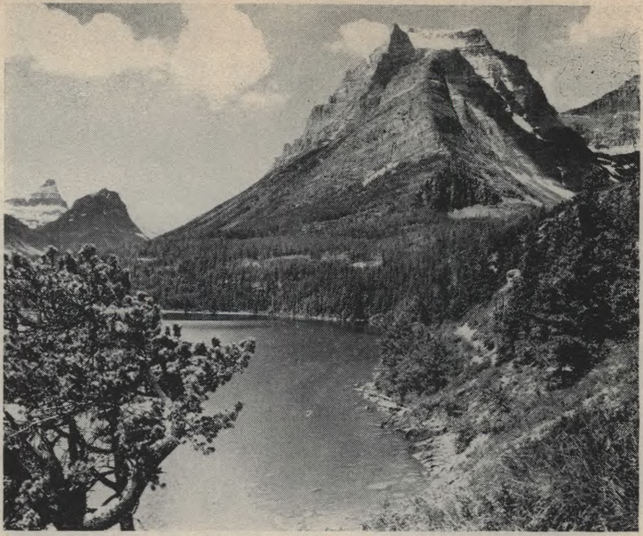
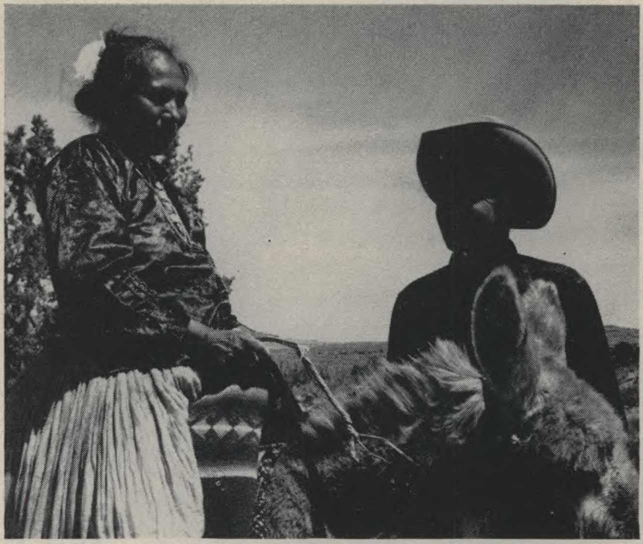
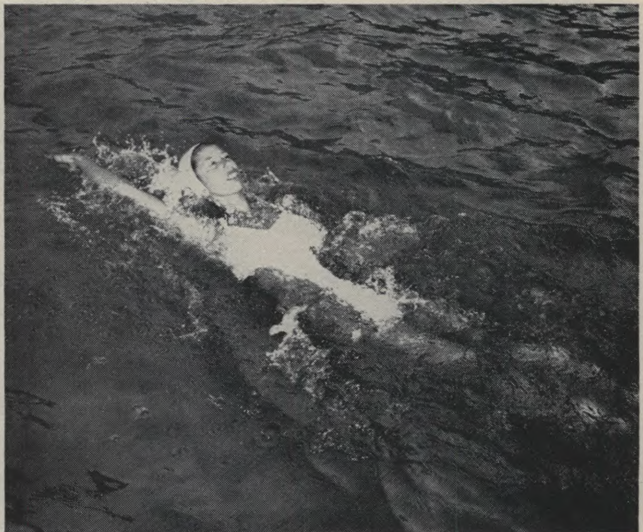
KNOWLEDGE PLUS CAMERA — The simplest of cine cameras, in the hands of a photographer with an eye for composition, a knowledge of photographic lighting and a keen pictorial sense, will produce motion pictures of professional quality.



COMPOSITION—A knack for composition is a must. Had the photographer omitted the tree in left foreground here, scene would lack depth and pictorial interest.



REFLECTORS are essential to good closeup photography out of doors. Use of reflector would have saved this shot by throwing light into deep facial shadows.



FRAMING—Note how careful framing placed figure diagonally in frame, made far more interesting composition than if swimmer were moving horizontally.

The "Pro" Touch In Amateur Movies

By CHARLES LORING

THE ONLY difference between an amateur motion picture and a professional one, someone has said, is in the photography. Somewhere between the two are films of varying quality, depending upon the knowledge and the skill of the photographer. The serious movie amateur, of course, strives to achieve a professional quality in his photography — the quality he sees in motion pictures on theatre screens.

The first step in this direction is to assume a professional point of view — observing what is professional technique and then setting a similar course for your own filming. Study all the outstanding motion pictures — yes, and even the "quickies" — in order to understand how various photographic problems are handled, how composition is developed and the part careful lighting plays.

Whether or not your camera is elaborate and expensive is unimportant. The really important thing is *how* it is used. It isn't so much your camera equipment that's responsible for the quality of your photography as it is your skill and knowledge, and your ability to apply what you have learned. Just be content to work within the limitations of your equipment, admitting that certain cinematic effects may be impossible to achieve, but still retain the experimental attitude.

So you want your pictures to look more professional. Alright—but you're not going to achieve this overnight. You're going to have to work up to it gradually, just as did the professional cameraman in the early days of his photographic career. First, decide that you are going to aim for improvement in your very next movie making project, that you will handle your camera more professionally—steady and with a minimum of panning; that you will give more advanced thought to composition and lighting, etc. Keep these thoughts in mind and your camera ready.

It may occasionally happen that you'll have time just to grab your camera and get it loaded before shooting some spur-of-the-moment activity. But usually you will know in advance when some event is taking place that you'd like to record on film, and it will pay to plan your shooting so that the resulting film will show a studied approach. Even as simple an activity as a church picnic can make an interesting film if you approach it with originality. Having attended such events before, you will know quite well what to expect, and what will be of cinematic interest.

Prepare a simple script or scene list based on what you think may take place at the picnic, leaving room for on-the-spot coverage of situations you can't anticipate. Make sure to provide the necessary shots so that your locale is properly established and re-established throughout your sequence, and also include plenty of closeups in your plans. Hollywood productions make extensive use of the closeup. There's no better way to draw your audience right into the reality of the situation itself.

When getting down to actually shooting the sequence, concentrate on smoothness of technique. There is nothing that so definitely places a film in the novice class as jerky or unsteady camera handling. There is much to be said for the maneuverability of the hand-held camera in newsreel coverage or in situations where the subject matter would be lost if time were taken to set up a tripod. But whenever the situation permits, a tripod should be used to insure camera steadiness. Similarly, it is advisable to practice panning and tilting the camera so that these two effects can be achieved smoothly when they are necessary. A jerky

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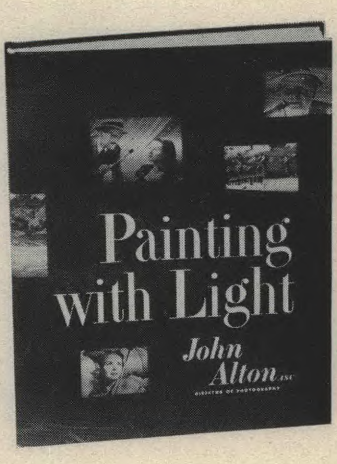

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Tips To AMATEURS *From The* PROS

Lighting For Kodachrome

There is an old saying among photographers: "Expose for the shadows; the highlights will take care of themselves." It is an excellent axiom for black-and-white film, but it does not hold true for color. With any color process, the highlights are the troublesome things. If they are over-exposed, they become just a colorless white glare. So in color, the safest rule is to expose for the highlights, and balance the shadows to them.

The matter of shadow-lighting depends to a great extent upon the kind of shadows you want. In any event, don't be afraid of shadows in a color shot. They "make" the picture, even more than they do in black and white.

—Hal Rosson, A.S.C.

Color For Black and White Films

Beautiful color effects can be given black and white cine films through the use of chemical tones and dyes, which are available in a wide variety of colors. Every reader is probably familiar with sepia-toned movie films which are simply black and white films that have been immersed in a sulphide solution, which converts the silver image into a sulphide one and so produces warm, brown tones that are very attractive.

Still other chemicals make it possible to obtain blue, green and copper tones, and these, when judiciously used, add immeasurably to the beauty of any black and white scene. These color effects are so easily obtained, so simple and inexpensive to use, plus the fact that no darkroom is required, that more movie amateurs should explore their use. Many camera stores have simple color tones and tints for use with movie films, that are already compounded and ready for use. They are especially valuable for tinting or toning titles made on black and white film for use with Kodachrome scenes.

—Charles G. Clarke, A.S.C.

Background vs. Foreground Lighting

It is essential for the serious movie amateur to recognize that there are two separate and distinct parts to a pictorial composition as generally photographed for the screen: the background and the foreground. Each is important and each contributes its share to the ensemble's effectiveness. They have a definite relationship and, when properly employed, supplement each other. Lighting, therefore must be done with this well in mind.

Audience interest lies in the actions of your subjects. They must be readily seen. They must stand out against the background, not merge into it and become lost.

—John Arnold, A.S.C.

★ ★ ★

pan or one that is too fast is definitely distracting and unprofessional.

Backgrounds and settings are given a great deal of consideration in the production of the Hollywood studio feature, and camera crews are often sent many miles to photograph action against certain unique backgrounds. These elements are no less important to the amateur cameraman, but he is often handicapped somewhat by not being able to take off on the spur of the moment with cast and crew to do some shooting in far-flung locales. Luckily it is not necessary to travel great distances to find interesting background. In almost every locality there is some spot that is especially scenic or pictorially interesting and which would make a perfect setting for a sequence or story tailored to it. Keep a list of such locales in the vicinity of your home, and work up scripts to take advantage of them.

Since a motion picture cannot be retouched, the studios do all "retouching" in advance through the use of corrective make-up and lighting. The amateur producing a serious film will also find this procedure valuable in correcting certain errors before they are made. Considering the subject of make-up, for example, we all know that if we photograph people exactly as they appear naturally, the result is not always a happy one. If the leading player has a poor complexion, have him or her use a make-up base that will cover blemishes and prevent them from showing up glaringly in closeups. Similarly, it may be to advantage to make some players look younger or older for certain parts they are to play. Some people have features that are so fine or so subtle that they should be accentuated by make-up to prevent their "washing out" on the film. There are several reliable books that fully cover the subject of simple screen make-ups. One manufacturer of cosmetics puts out a small and quite inexpensive kit containing all essentials for basic screen make-up.

If you should chance to see a professional movie company shooting on location, you will observe that they always use reflectors or booster lights on exterior scenes. This is to fill in the shadow areas and prevent the harsh contrast caused by bright sunlight. The movie amateur will find it advisable to make up several portable reflectors that he can use for this purpose, too. Simple but effective reflectors can be made by gluing crinkled florist's silver foil onto plywood boards. The added smoothness of photography made possible through the use of a few reflectors is really amazing.

For interior filming, the amateur movie maker has often been advised to rely on flat lighting, on the premise that it is the most nearly foolproof method of lighting for indoor scenes. However, with the new mushroom type floodlights now available, especially when coupled with portable transformers recently put on the market, it is quite possible for the amateur to set up some nicely modeled lighting that will give his films a more professional finish. Sidelight, backlight and toplight give depth and roundness to a subject, and also help to separate it from the background. Such lighting can now be achieved with a minimum amount of equipment.

The moving camera is another basic studio technique which the amateur may adapt to his own filming with great success. To be able to follow a subject with the camera or to move from long shot to close-up in the same scene immediately, affords the cameraman a greatly enlarged scope. There are small camera dollies on the market which are quite satisfactory when used within their limitations.

Editing and titling provide the finishing touches to every motion picture. In editing, be ruthless in cutting out everything that is not up to your standard of excellence. Cut for variety in camera angle and image size as well as for pace. Do not leave a scene on the screen too long just because it happens to be pretty. Work for smooth transitions between scenes and sequences. In titling, work for ideas that will tie in naturally with the subject and finally, but no less important, provide an effective opening and closing for the film.

CAMERA CRANE

(Continued from Page 242)

lifted up 55 degrees and down 45 degrees. A hydraulic cylinder with a 15-inch extension is mounted in the unit, to give the maximum camera height.

The steering unit is of a special design that permits the crane to be completely turned around in a 6-foot radius and allows it to be placed against a wall with a minimum of maneuvering. A silent motor drive unit is provided, with a control unit that can be operated either remotely or at the crane position. A smooth-acting friction brake insures perfect control of the crane speed. Jacks are included for use when the crane is to be used in a fixed location.

Three models of the Research Council Camera Cranes are now being manufactured and sold by The Houston Corporation, under exclusive license from the Council. (Complete information on these three models, which differ mainly in the equipment and accessories provided, will be supplied upon request to The Houston Corporation, West Los Angeles 25, California – ED.)

CINE CLUBBERS LEND A HAND

(Continued from Page 246)

plumber-plasterer combination, you see.) However, I knew a chap in one of the Hollywood studios, and he loaned me a script for reference purposes. After a few consultations with various members of the Cinema Club, we were able to work out a shooting script. Appropriately enough, considering the nature of our subject, the borrowed script was named, "One Sunday Afternoon."

Our actors were semi-professionals who had helped me considerably on my radio shows. Most of them had full time jobs. This made our shooting schedule something of a problem. If I had it to do over, I would spend a lot of time determining a shooting sequence which would work less of a hardship on those who had to sandwich their acting in between the requirements of their work. My boy, who played the lead, received courteous permission from his principal to cut a few classes. Incidentally, the film concerns a delinquent boy who was always playing hooky.

Except for re-takes, the entire production was shot in approximately three days. I think we could have even beat that time had I planned a more efficient shooting schedule. Re-takes were few but could have been reduced had we observed one or two basic rules. One scene was shot in a living room which has a large, bay window. The scene was supposed to be evening but we were shooting in the middle of the afternoon, with a mixture of daylight and artificial light. The result was that the scene lacked true color values — we were shooting Kodachrome — so we re-shot it at night, using photofloods for lighting.

I still don't know how to plan for the vagaries of the weather. Our cast was impatiently stewing around waiting to shoot the final scene of the picture—an exterior. Our famous California fog was most uncooperative. Then, when we were just about to give up, the sun came out for just forty-five minutes — long enough to enable us to shoot the scene and wind up the picture.

After editing of the picture was completed to suit us, we then took it to a commercial sound studio in Hollywood to have the sound recorded and dubbed in. We knew that our film was much longer than the standard "one reel," but we were convinced that it was cut to the minimum.

The sound man mounted our masterpiece on his editing machine and promptly began to snip a frame here and there. "Wait a minute," I cried, "you're ruining the film we love!"

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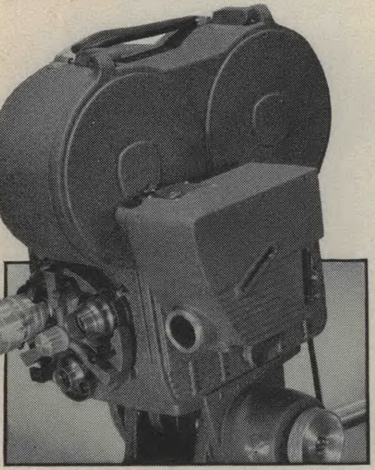

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"Wait and see," he replied with perfect calm. We waited. Soon we saw another hundred feet of our labors littering the cutting room floor. Then our "friend," the sound man, proceeded to project the film for us. What we saw amazed us. The film had been tightened up and strengthened a great deal by his dexterous cutting. Which proves: that any film can be helped by an impartial editing by a person skilled in that work.

Timing the narration for dubbing in the sound presented something of a problem. We found the best procedure is to measure each scene accurately. Then we converted the number of frames to seconds. I wrote narration for each scene, figuring three words per second. The narration was not tight — that is, every scene was not absolutely full of narration. This allowed for some leeway in synchronization and made for a more interesting film. Too much yakity yak is undesirable.

The film's scenario was written with the idea of the narration and the action complementing each other. Thus I endeavored to make sure that the narration did not describe anything which the action plainly indicated and vice-versa. We checked this when we viewed the film without the sound and listened to the sound track without the picture. Each was definitely incomplete. In a film of this type, where a great deal of propaganda and teaching of facts are incorporated, the narration is best thought of as the pill and the movie as the sugar coat that makes the pill easy to swallow.

We went to the sound studio with our script carefully timed and dubbed in the narration. According to the sound engineer, the narration worked out fine. What pleased us most of all, however, was a statement by the man who dubbed in the sound. He said, "Your script has been timed out as good or better than any we have ever done."

There were about ten seconds of lip synchronization at the end of the film, where the Boy makes an appeal for support for the Released Time program. We had this done in the studio the day we dubbed in the sound. The quality and perfect synchronization which resulted justified the expenditure.

We took the name for the film, "Let Them Come" from the Revised Standard Version's translation of Mark 10:14 which appears over the door of a church which figured in the picture.

The finished film had its premiere showing before members of the Long Beach Ministerial Union. There was unanimous agreement that it would accomplish our purpose in producing it—to acquaint citizens of the community with the aims and accomplishments of Week Day Released Time Religious Education. Those of us who helped in producing the picture trust that this pioneer venture in a new field of religious work will open the way to the production of other films with a similar purpose. The modest production cost—it was only $299.96 for our one reel 16mm. Kodachrome film—certainly should not prove an insurmountable obstacle.

THE ANIMARS

(Continued from Page 248)

In the design and manufacture of any photographic lens system a fair percentage of the purchase price of that lens may be directly attributed to the number of optical elements in the system. It is reasonable to assume that a lens of six elements will cost more than a lens of two elements, factors such as speed, coverage, focal length, etc., being equal, although the cost is not necessarily directly proportional to the number of elements.

It is extremely fortunate from a cost standpoint that in most cases of eight and sixteen millimeter motion picture photography only moderate angular coverages and speeds are required. For example, the standard lenses on most of the semi-professional and amateur cameras on the market at the present time are of speeds in the neighborhood of f/2.8 and angular coverages of about 27°. For this speed and coverage extremely well corrected triplet type lenses have been designed for use in the Animar series. The basic formula utilized in this design is covered by U. S. Patent No. 2,453,260 granted to K. Pestrecov in November, 1948. Modifications of this formula have been used for construction of the 12.7mm. f/2.8, 25mm. f/2.7 and 37.5mm. f/3.5 Animars in the eight millimeter series, and of the 25mm. f/2.7 and 50mm. f/3.5 Animars in the sixteen millimeter series. Typical of these lenses is the 37.5mm., a cutaway view of which is seen in Figure 1.

While this triplet type of lens can be expected to give very excellent results when used at speeds and coverages of about f/2.7 and 27° respectively, its speed or coverage cannot be increased much beyond these values without sacrificing unduly the image quality. Disregarding such special systems as those employing reflective components, it is generally necessary to utilize at least four optical elements in a lens system to obtain a high degree of correction at speeds as great as f/1.9 and at coverages of 25° to 30°. In the Animar series the f/1.9 lenses are of the well known "quadruplet" type; a cutaway view of the 14mm. f/1.9 is seen in Figure 2.

In the past this "quadruplet" type of lens has often been found to suffer severely from focus shift with aperture change. In the Animar design this has been eliminated by overcorrecting the marginal spherical aberration somewhat. The zonal spherical aberration has at the same time been reduced to a value approaching the Rayleigh-Conrady limit.

In choosing the "Tessar" type lens for the "wide angle" lens (15mm. f/3.5 Animar for sixteen millimeter cameras), careful consideration was given to the ratio of the corner-to-center illumination in the image plane, at the same time maintaining a high degree of correction at the margin of the field. The design of this lens is almost unique in that the illumination ratio is considerably higher than that expected from the ordinary Tessar constructions. The coma correction has been held within the Rayleigh-Conrady practical limit for extremely sharp definition to the near margin of the field. The correction of both the tangential and sagittal curvatures of this lens is well within these tolerances, giving an extremely flat field.

For the f/1.5 Animars the "Gaussian" type of lens system has been chosen. This type of lens system is represented by the well known Baltar and Biotar lenses whose excellent characteristics are well known and highly respected. Shown in cutaway is the 25mm. f/1.5 Animar. See Figure 3.

When the specifications for the 75mm. and 100mm. Tele-Animar lenses were considered, it was agreed that, because of the need for keeping the lens mounts within a convenient size, it was desirable to use a highly corrected telephoto lens system, (i.e., a system with a back focus in the neighborhood of one-half the focal length). Such a lens system was found to exist in the "split-front triplet" type of objective. Compound modifications of an early prototype of this type are the well known Sonnar lenses. In the design of the Tele-Animars it was found that this "split-front triplet" type of lens offered definite and distinct advantages over the simple triplet form when lenses of longer focal lengths are needed. Not the least of these advantages is the extremely high degree of coma and spherical aberration correction, as well as the very favorable correction of astigmatism and curvature of field. Figure 4 is a cutaway of the 75mm. f/3.5 Tele-Animar.

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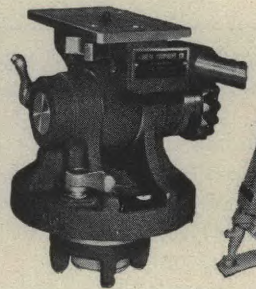

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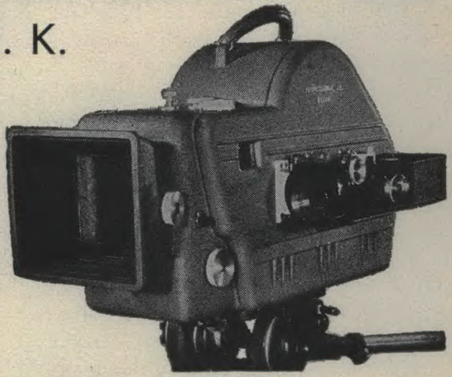

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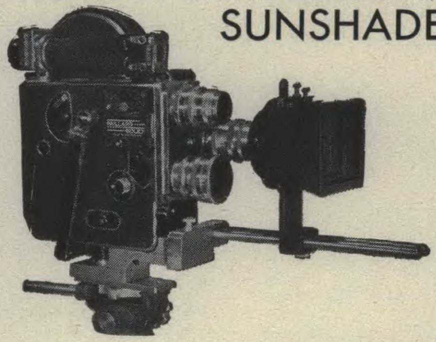

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TABLE II

Residual Aberrations of the Animar Lenses Compared with Rayleigh-Conrady Tolerances

Aberrations	12.7MM. F/2.8 ANIMAR R-C Tolerances	12.7MM. F/2.8 ANIMAR Residual Aberrations*	15MM F/1.5 ANIMAR R-C Tolerances	15MM F/1.5 ANIMAR Residual Aberrations*	75MM. F/3.5 TELE-ANIMAR R-C Tolerances	75MM. F/3.5 TELE-ANIMAR Residual Aberrations
Marginal Spherical	0.08mm.	+0.01mm.	0.02mm.	—0.03mm.	0.12mm.	+0.05mm.
Zonal Spherical	0.11mm.	—0.09mm.	0.03mm.	—0.06mm.	0.17mm.	—0.05mm.
OSC: strict	0.06%		0.03%		0.04%	
practical**	0.25%	0.01%	0.25%	0.14%	0.25%	0.13%
Comatic Patch strict	0.005mm.		0.003mm.		0.006mm.	
practical**	0.025mm.	0.008mm.	0.025mm.	0.047mm.	0.025mm.	0.013mm.
Curvature strict	0.01mm.		0.003mm.		0.01mm.	
practical**	0.14mm.	T—0.05mm. S—0.09mm.	0.08mm.	T—0.02mm. S—0.04mm.	0.18mm.	T+0.04mm. S—0.06mm.

* Maximum values within the intended field of coverage.

** Based on Conrady's criterion for extremely sharp definition.

The excellence of the Animar lenses is readily seen by a comparison of the representative residual aberrations of these lenses with the limits of the various aberrations as given by the Rayleigh-Conrady tolerances. The basis for these tolerances was established in 1878 by Lord Rayleigh when he advanced his famous "Quarter Wave Theorem." The limits of the various aberrations based on this theorem are so small and difficult to achieve in optical design that lens designers generally do not hesitate to accept values of residual aberrations several times in excess of the values derived from the Rayleigh-Conrady tolerances. As a matter of fact these limits are so severe that Conrady himself has established less strict limits for such aberrations as OSC, coma, curvature, and astigmatism.

For his less strict tolerances Conrady has set up three classifications, namely: extremely sharp definition, good definition, and definitely soft definition. In Table II in which the residual aberrations of representative Animars are compared with the Rayleigh-Conrady tolerances, the extremely sharp definition of Conrady's less strict tolerances has been termed the practical limit as differentiated from the strict Rayleigh-Conrady limits.

In the design of an optical system, whether it is a motion picture lens system or some other type of lens system, the choice and use of the optical glasses in that system largely determine the degree of color correction of the system. There is no "magic" procedure that can be applied to obtain a "superior" color correction since the limitations of color correction are of a basic nature. However, there is available today such a variety of optical glasses of various characteristics that the designer can generally color correct his lens without any serious difficulties. Every care and precaution has been taken in the design and manufacture of the Animar lenses to assure that the wisest possible choice of optical glasses has been made, resulting in the extremely good color correction of these lenses.

In the design of the mechanical mount for a photographic lens, as with the design of any other mechanical product, consideration must be given to the ultimate use of that product. In the case of the Animar series of lenses, which are to be used largely by semi-professional and amateur photographers, considerable thought was given to the needs of these two types of users and to the means of filling those needs.

No general breakdown as to the class of the user and the mechanical features he will most appreciate can be given. It can be noted, however, that the amateur taking his first pictures will find of extreme value the built-in exposure index on these lenses. The proper use of this index with the daylight type of color film (A.S.A. exposure index 10) will give satisfactorily exposed pictures under conditions of lighting varying from Dull to Bright at any season of the year.

The critical photographers who want to know the range of focus at any given object distance and aperture stop will greatly appreciate the depth of field scale which appears on most of the lenses of this series. For distinction, the aperture and focusing index is filled black; the depth of field scale is filled refractor orange.

All photographers will make use of the click stops of the aperture scale which enables them to vary the aperture setting by counting the clicks. For example changing from f/4 to f/5.6 is one click, to f/8 is two clicks and so forth. This eliminates the necessity of checking visually every change of the diaphragm position.

Perhaps the first mechanical feature of the lenses that the photographer will use is the orientation feature, which permits the user to place the lens on the camera and position the engraving to his liking. This is accomplished very simply by loosening the three lock screws in the lock ring, that ring nearest the camera, and turning the lens in a clockwise direction until the engraving is desirably located. The lens is then secured in place by tightening these three screws.

TABLE III

Mechanical and Optical Features of the Animar Lenses

LENS IDENTIFICATION	Number of Elements	Balcote Surfaces	Maximum Aperture	Minimum Aperture	Click Stops	Exposure Guide	Focusing Scale	Nearest Distance	Depth of Field Scale	Circle of Confusion*	Orientation	Slip on Filter Adapter**	Screw-in Filter Adapters**
ANIMARS FOR 8MM. CAMERAS													
12.7mm.f/2.8	3	Yes	f/2.8	f/16	Yes	Yes	No	—	No	—	No	18mm,	None
14mm.f/1.9	4	Yes	f/1.9	f/22	Yes	Yes	Yes	2 ft.	No	—	Yes	18mm,	None
15mm.f/1.5	6	Yes	f/1.5	f/22	Yes	No	Yes	1½ ft.	Yes	0.0005"	Yes	23.5mm.	None
25mm.f/2.7	3	Yes	f/2.7	f/16	Yes	Yes	Yes	2 ft.	Yes	0.0005"	Yes	23.5mm.	None
37.5mm.f/3.5	3	Yes	f/3.5	f/22	Yes	Yes	Yes	2 ft.	Yes	0.0005"	Yes	23.5mm.	None
ANIMARS FOR 16MM. CAMERAS													
15mm.f/3.5	4	Yes	f/3.5	f/22	Yes	Yes	Yes	6 in.	No	—	Yes	28.5mm.	None
25mm.f/1.5	6	Yes	f/1.5	f/22	Yes	Yes	Yes	1½ ft.	Yes	0.0010"	Yes	28.5mm.	1.0433x36
25mm.f/2.7	3	Yes	f/2.7	f/16	Yes	Yes	No	—	No	—	No	25.5mm.	0.9252x36
26mm.f/1.9	4	Yes	f/1.9	f/16	Yes	Yes	Yes	2 ft.	No	—	Yes	28.5mm.	1.0433x36
50mm.f/3.5	3	Yes	f/3.5	f/22	Yes	Yes	Yes	2 ft.	Yes	0.0010"	Yes	28.5mm.	1.0433x36
75mm.f/3.5	4	Yes	f/3.5	f/22	Yes	Yes	Yes	3 ft.	Yes	0.0015"	Yes	31.5mm.	1.1024x36
100mm.f/3.5	4	Yes	f/3.5	f/22	Yes	Yes	Yes	3 ft.	Yes	0.0020"	Yes	35mm.	1.2796x36

* Used in designing the depth of field scale.

** Not supplied by Bausch & Lomb, but are commercially available.

The mounting dimensions of the Animar lenses was chosen in accordance with the American Standard Association recommendation; namely, a mounting thread of 0.625" x 32TPI for the eight millimeter camera lenses with a registration distance of 0.484". For the sixteen millimeter camera lenses the thread is a 1.000" x 32TPI and the registration distance is 0.690".

All the air-glass surfaces of these lenses have been given the Balcote, ultra hard anti-reflection coating.

Many users will find other mechanical and optical features of these lenses of particular value to them. A list of the features and the lenses on which they are to be found is given in Table III.

The lenses of this Animar series answer most of the needs of the semi-professional and amateur photographer; however, additional lenses will from time to time be added to the series to even more completely fill the needs of these photographers. The lenses in the 16mm. series are also eminently suitable for professional 16mm. photography.

NEW COLOR FILM

(Continued from Page 240)

Subsequently, the problem of getting non-migratory color formers was approached by different workers in several ways:

(1) Color formers have been made which seem to adhere to gelatin as certain dyes do to textile fibers.

(2) Migratory color formers have been chemically combined with long chain or complex ring structures which give giant molecules too big to wander through the gelatin structure of the emulsion layer.

(3) Color formers have been made non-migratory by incorporating them in a colloid (a resin or gum) and then dispersing the colloid in the emulsion into very small particles.

Thus in all previous approaches to the problem emulsion layers for color-forming development have contained at least three components—gelatin, silver halide and color former. In the release positive worked out by du Pont only two components are employed—silver halide and a synthetic polymer which plays the role of both the gelatin and the color former previously used.

It was logical for du Pont with wide experience in producing such polymers as nylon, neoprene and polythene, to undertake the synthesis of dual-role polymers for color photography. Three different polymers have been made for the present film. Each one contains an ap-

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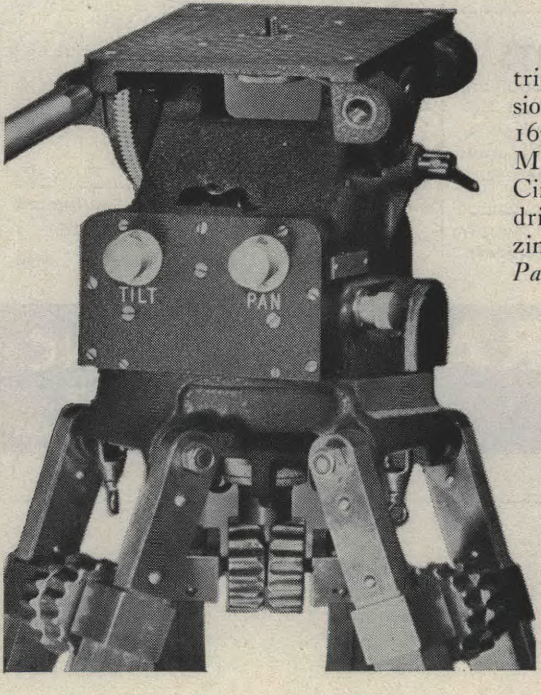

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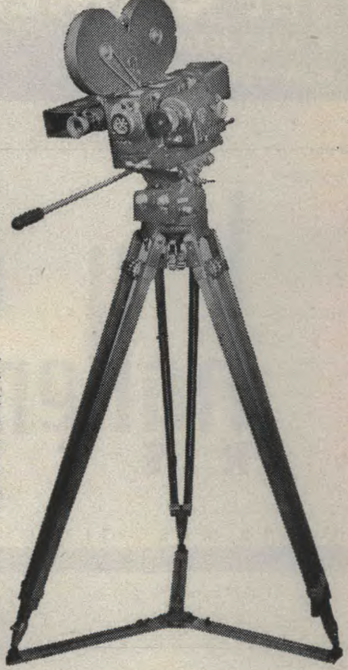

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propriate dye-generator as a part of the complex polymer molecule. Furthermore, these polymers exhibit properties which are superior to gelatin in many respects.

It has been argued that a slight solubility of the color former in water was essential in order to bring about the dye-coupling reaction during development, and that the migration of a soluble color former had to be prevented by means such as those referred to above. In the new conception presented by du Pont, the color generator only swells in the processing solutions. There are no problems whatsoever of migration or solubility. When the polymer is swollen the color-generator, though locked in the polymer molecule, remains highly reactive with the oxidation product of the developer. Positive emulsions made with these polymers are characterized by a high dye-generating efficiency and sharp definition of image.

The layer arrangement in du Pont color release positive departs from the order commonly used by monopack producers, as shown in the diagram, Fig. 1.

Such an arrangement is permissible because the printing is done on a registration printer and any one of the three separation negatives can be directed into the appropriate layer by the proper selection of printing light. The particular arrangement above permits optimum quality in that the least important record from the standpoint of definition, the yellow, is placed in the bottom layer where diffusion effects caused by printing through the two emulsion layers are least noticeable.

The du Pont layer arrangement suggests the use of a dye sound track and a blue-sensitive photocell for reproducing sound. A track in magenta, which gives good response to a blue cell, can be confined to the outer layer to get the advantage of sharp definition. But since blue cells are not a part of the present theater equipment, a silver-plus-dye track is recommended, and this can be obtained by several known methods, such as preventing the bleaching of the sound track area or by redeveloping or sulfiding the track after bleach.

The color release positive film, although yielding acceptable results with separation negatives made from 35mm. and 16mm. color originals, will give maximum quality with black and white separations made in a split-beam camera or by other means capable of giving black and white originals.

Eastman Kodak Company has announced important price reductions on a number of popular cameras and movie projectors.

PHOTO BACKGROUNDS

(Continued from Page 240)

a minimum of grain. Secret of the improved detail and contrast noted when Paul's backgrounds are used in motion picture lies in their translucency. Rendition appears perfect to the eye, but when light is projected through the background from the rear, it "comes to life," to quote Mr. Paul. Actually the difference between Paul's translucent backgrounds and the old type, multi-section opaque backgrounds is quite marked.

Perhaps the most important feature of these backgrounds is their adaptability to color productions as well as black and white. After each background has been exposed and developed out, oil colors are sprayed on the back of the picture. This is a carefully executed job of hand decorating which gives the appearance of a natural color photo when it is lighted from the rear.

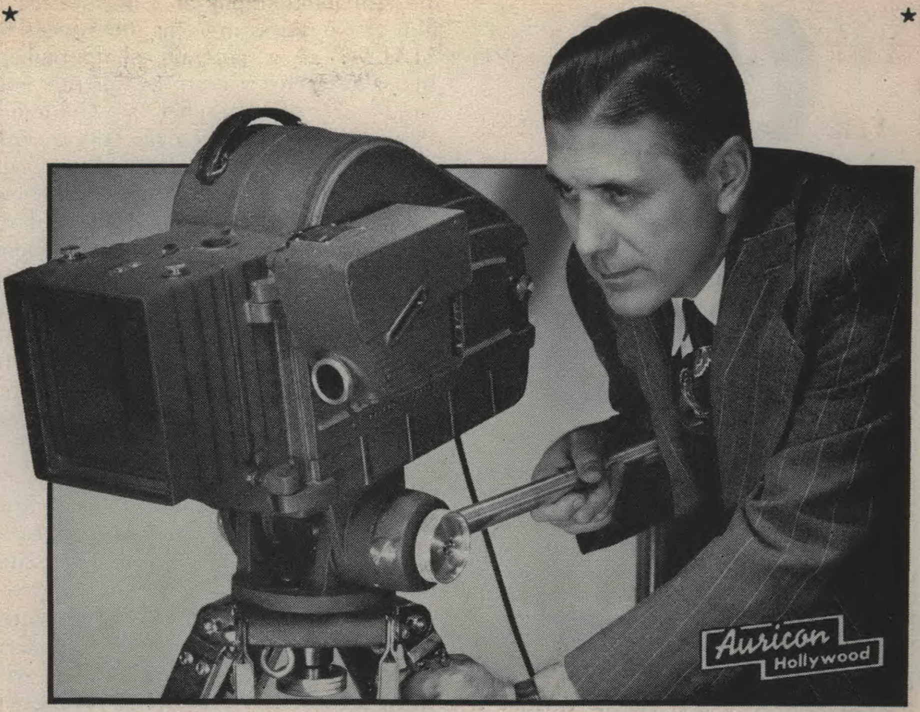
When used on the set, the backgrounds are usually lit from both the rear and the front. Two methods of lighting have been found satisfactory for lighting from the rear — either direct lighting from incandescent or arc lamps, or reflected light. In the latter method, the picture is backdropped by a huge white cloth. Lights directed upon this cloth, reflect a diffused light of ample volume toward the background picture. This is the method that was used on the *Champion* set mentioned earlier, and illustrated in one of the accompanying photos.

By using either front lighting or reflected lighting from the rear, the background serves as either a day or night backdrop. Where the scene comprises a skyline picture including a number of skyscrapers and other buildings, realistic night effects are created by applying a matt in back of the background with areas representing windows of buildings cut out to allow bright light to show through.

Paul's backgrounds require a minimum of care in handling and take up less space in storage than other types of backgrounds, because they can be rolled up without causing wrinkles or cracking in the picture surface.

Paul's friends know him simply as "M.B." — the tag he has been known by for years. In the photographic business for the past 26 years, Paul got his start as an apprentice to the late Robert Schueler, renowned portrait painter and photographer who was one of the country's leading camera artists at the turn of the century. It was while in Scheuler's employ that Paul learned how to make emulsions and coat materials with them.

Coming to Hollywood years ago, Paul



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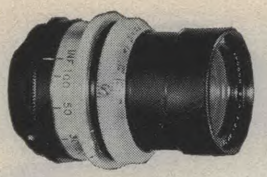

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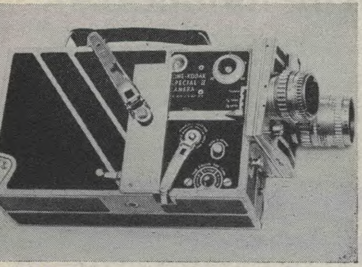

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did still photography at CBS, started a film test business in 1934, then went to M.G.M. as a portrait photographer. Later he spent 7 years as portrait and poster art photographer at Columbia Pictures. It was during his tenure with the studios that Paul learned of their needs for more durable and practical photo backgrounds. Chief complaint of the studios was the ill-matched sections of the opaque murals used at the time and the storage problem. Recognizing the need for a one-piece, translucent and highly flexible medium for such picture enlargements, Paul proceeded with research that led to development of his present secret process.

Now, he thinks, he has the answer to every studio's background problem. Studios can either buy or rent his photo backgrounds. Already, production demands have outgrown his present two-story quarters, and Paul is presently drawing plans for a new and modern building to house his business that will feature the latest type scene production docks and elevators for use of painters and finishers while working on the giant photo enlargements. Where at present Paul is limited to turning out photo backgrounds beyond 20 feet in width, the new plant will permit the production of backgrounds 45 to 60 feet in width. Studios, of course, already have found economy in Paul's one-piece, translucent day-and-night color backgrounds through the time and money saved in set lighting and the savings they afford in set construction.

INDIA'S MOVIE INDUSTRY

(Continued from Page 237)

than one quarter of the amount of electrical equipment customarily employed here. Sets, more often than not, are not too cleverly built, so it's up to the cameraman to "do it with lights." He has at his disposal very few or none of the various helpful adjuncts which we take for granted, such as dimmers, century stands, adequate nets and scrims, adjustable goboes, adjustable hangers, etc., but has to improvise substitutes as he goes along. The lighting units most generally employed are juniors and baby juniors. Seniors are very popular, but since 5kw globes cost around $125.00 on the black market, there aren't many of them in use.

The Indian cameraman keeps abreast of all the latest ideas in the way of meters, filters, handbooks, and the like, but aside from the difficulty of obtaining such helpful items, they are very expensive for him. Another serious handicap there is the present status of the Indian laboratories; the work is comparatively poor in quality, with the old rack-and-tank technique being used in most cases, and not too skilfully. There is one notable exception, however; in Bombay the Bengal Film Laboratories are being operated by the Mehta Brothers, one of whom was for three years or so associated with the old Rothacker-Aller organization in the U.S.

They are using machine development, and the entire plant is operated on a strictly modern and scientific basis, using sensitometric control throughout, with full air conditioning, even to the storage vaults.

Needless to say they are extremely busy, usually running three shifts. Probably the greatest problem confronting the cameraman of India is, however, the raw stock situation. Whatever the reason, the procurement of a sufficient quantity of film for a picture is a difficult and sometimes expensive procedure. It is not at all uncommon for a cameraman to use, in the same production, stock from several different manufacturers.

We here in our comparatively lush studio facilities are prone to object most strenuously when we are forced to change emulsion numbers during a picture. Our Indian contemporary thinks nothing of intermixing Harrow (British Kodak), Rochester, DuPont, Gaevert, and perhaps a dash of Fuji (a postwar Japanese product, and not half bad, either). How he manages to maintain a semblance of uniformity, particularly when the ages of the various stocks are sometimes doubtful, I can't imagine, but he does amazingly well in that line.

Perhaps one reason is because he is not averse to making a hand test when changing from one stock to another. In fact, many of our top-flight men would find no little difficulty in delivering the same excellent quality working under the same unfavorable conditions.

The leading cameramen of India are a hard-working progressive lot, and are ever alert to new and improved ideas. Naturally they look to ASC members as leaders in the craft, and are fully cognizant of the changes and advancement in the art as exemplified by them. More than that, most of them have their individual favorites among the contemporary men here, whose work they follow in detail by means of the trade publications, most of them having access to *The American Cinematographer*. One cameraman in Bombay assured me that he has a complete file of our magazine, from the very first issue.

An interesting slant on the Indian's eagerness to keep abreast of the times is that there is a group which makes it a regular practice to attend the opening night of each new American picture, when possible. If the picture appeals to them from a photographic viewpoint, they return another time with cameras and photograph certain selected portions of the picture on the screen. The shots are later enlarged, studied and discussed in detail by the group.

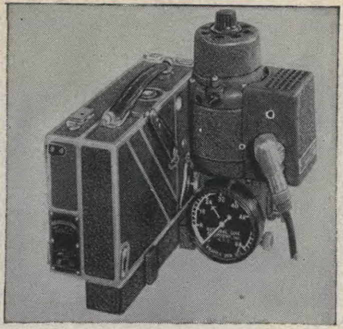
They make no attempt at direct imitation, but by this means compare the work of different individuals, and decide for themselves the most effective treatment for a given subject. The work of our leading cameramen is entirely familiar to them, and almost without exception, any of the leading cameramen of India can say with entire certainty who photographed what picture, and when.

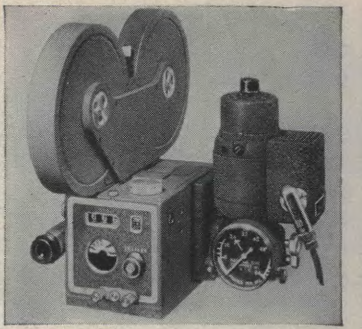
Sound recording technique in India is extremely well advanced, and the engineers and technicians in that department are doing a splendid job; they are making great progress in re-recording and dubbing, and are constantly on the alert for new methods and improvements.

All of the principal manufacturers of studio equipment are well represented there: Bell & Howell, Mitchell, Mole-Richardson, RCA, Fearless, etc., with the prices on everything about 50% higher than here.

The electrical situation in the studios is considerably below par; there are no generators, hence no arcs. AC is supplied from the regular city mains, and in some localities each studio is limited to a maximum consumption of 75kw.

Studios themselves are somewhat smaller in scope than those with which we are familiar, but generally they are quite adequate and competently staffed. Most of the stages, which they term "floors," are not completely soundproofed but this is not often a detriment. In most instances the studios are located in re-





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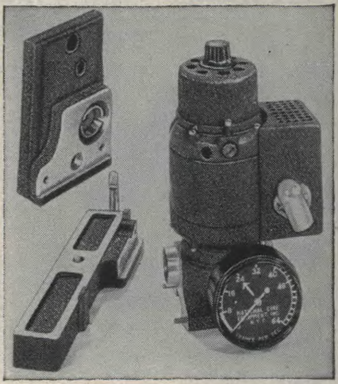

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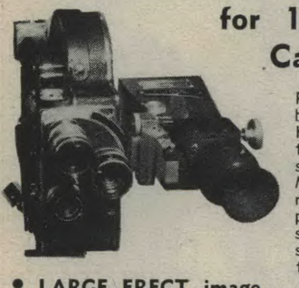

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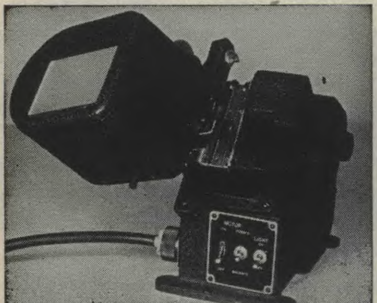

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mote sections of the city where traffic noise and other sound problems are at a minimum.

American pictures are extremely well received by the audiences of India, both native and European; preference is shown for westerns, musicals, and other varieties of purely entertaining subjects. Native audiences, particularly in the neighborhood houses, prefer the Indian made pictures, and the length of runs of favorite subjects is amazing; the better pictures often play from three to six months in the larger cities.

Indian audiences have a very definite preference as to the makeup of their pictures—so much so that all pictures there adhere to a technique which is so standard that it is almost a formula. The first requirement is that the picture be long—usually 12,000 feet. I was told that the average length was formerly greater, but that the government in the interest of conservation has placed that figure as a maximum. Regardless of the subject matter, there must be music in each production. This is done, usually, by the interjection of from four to seven songs or dances at intervals throughout the picture. Also, comedy relief must be supplied, generally being managed by the introduction of a couple of comics who come on the screen at various intervals, sometimes with little or no apparent connection with the story. Despite all of these demands, the Indian theater-goer prefers a story definitely on the sad side, with an unhappy ending if possible.

Pictures are made in the Hindustani language, which is almost a universal tongue, but occasionally versions are made in Kanarese or in some of the other languages. Action is depicted in a rather broad fashion, almost pantomimic, perhaps to help overcome the language difficulties in sections where Hindustani is not well understood.

It is hoped that the foregoing impressions will be accepted as such. No attempt has been made to furnish anything statistical or authoritative, but simply to pass along thoughts which seemed of interest.

Our trip was so pleasant and so productive, both as to friendships formed and results obtained, that we are looking forward with keen anticipation to our return next winter, when we hope to complete the elephant picture. Following this, Oriental-International Films will produce "The River," based on the sensitive novel by Rumer Godden. Renoir will direct and already he has selected Patricia Walters, a 12-year-old English school girl for a leading role, on the basis of tests which I shot while in India.

Plans call for shooting "The River" in Technicolor, and the company already has the cameras, the film, and the laboratory committments from Technicolor's London studios. This means, though, that they must ship special, direct-current generators and other like equipment to India for the production.

A.S.C's. NEW THEATRE

(Continued from Page 239)

& Howell auditorium-type 16mm. sound projector. Its sound system is channelled through the 35 mm. projector sound system and subject to the same remote control in the lounge. Thus the Society is now in position to review the many excellent 16mm. technical, commercial and amateur films at its disposal.

In solving a difficult projection problem, the American Society of Cinematographers has undoubtedly solved a similar problem for others faced with the same obstacles of building codes and fire restrictions. The fact that there is need for a suitable plan to circumvent such obstacles, that there are others in need of 35mm. sound projection facilities as yet unable to obtain them, within reasonable cost, is evidenced by the fact the problem will be dealt with at great length at the next S.M.P.E. convention. Undoubtedly the A.S.C. "theatre" will be studied for the sound suggestions it offers others wishing to provide motion picture exhibition in buildings never intended for this purpose.

Of course the A.S.C. clubhouse has many advantages not to be found elsewhere and which contribute much to the comfort of those attending its "theatre." There is the spacious 150-car parking lot, which is part of the clubhouse grounds, and there is a bar just off the lounge offering solace to the thirsty. There is a modern, well-equipped kitchen where a cateress prepares the delectable post-meeting snacks or the sumptuous monthly dinners for which the A.S.C. is renowned. But the comfortable seating is probably the "theatre's" salient feature for those who come to look at pictures.

Years ago, the A.S.C. clubhouse was the home of Conway Tearle, one of the top cinema stars of the silent era. The Society acquired the property in 1937 and converted it to provide quarters for its offices, a meeting place for its members, and recreational facilities for members who meet together between picture assignments.

ith the addition of projection facil- es, a long felt want of the Society's embers has been fulfilled. While the A.S.C.'s current board of directors are to be credited for seeing the project through, it is president Charles G. Clarke and executive vice president Fred W. Jackman to whom must go special credit for untiring efforts in following the project to completion.

HOLLYWOOD CLOSE-UP

(Continued from Page 245)

Angles—Setups in long shots are varied to tell the story from the proper angle. In close-ups, the reasons for changing angles are manifold. In feminine close-ups, the most important is to beautify the star, to correct and to symmetrize. If you study faces, you will find that some people have impossible profiles, while others look better in profile than in full face. Some look their best from a three-quarter angle. You will also notice that, in most faces, one-half of the face is different from the other. Very few people have symmetrical faces, with both halves equal. Search for the best angle, and when found, use it.

Size—Why do we make close-ups? To see the face. That being the case, let us see the face only and leave out everything secondary, or at least keep it subdued in tone. Limit the size of the portrait or close-up to whatever you are trying to feature.

Composition of Close-ups—When we look into a mirror, we look at our eyes. When we look at a picture of any kind, we instinctively look at the upper part of it. This is because the eyes are in the upper part of the face. If we haven't found in the picture what we are looking for, our eyes start to travel. Therefore, whenever possible, place features of interest in the upper part of the picture, or, as we call it in pictures, above the *half-line*.

Foreground in Close-ups—Foreground pieces should be employed with great care in composing close-ups or portraits. They can easily distract. Never use a lighted lamp over-exposed curtains, or any other hot object in the foreground, because light catches the eye; they should be in the background. By the time the eye accustoms itself to the bright light, either the scene is over, or the iris of the eye is so closed down that the face featured in this instance appears entirely too dark. If they have to be used, inasmuch as they are already established, then dim them down considerably. In two-shots, have the lamp in the center,

(Continued on Page 265)

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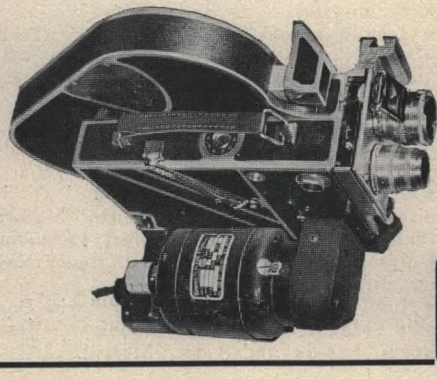

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Current Assignments of A.S.C. Members

Major film productions on which members of the American Society of Cinematographers were engaged as directors of photography during the past month.

COLUMBIA

• Burnett Guffey, "Baby Is Here," with Robert Young, Barbara Hale, Robert Hutton, and Janis Carter. Henry Levin, director.

• Lester White, "Good Humor Man," with Jack Carson, Lola Albright, and Jean Wallace. Lloyd Bacon, director.

• Vincent Farrar, "Woman From Headquarters," later changed to "Mary Ryan, Detective," with Marsha Hunt, William Phillips, Charles Russell, June Vincent and Victor Horne. Abbey Berlin, director.

• Henry Freulich, "Girl's School," with Joyce Reynolds, Thurston Hall, Ross Ford, Laura Elliott and Julia Dean. Lew Landers, director.

• Charles Lawton, "The Tougher They Come," with Broderick Crawford, John Ireland Ellen Drew, Ed Buchannan and Ted De Corsia. Earl McEvoy, director.

INDEPENDENT

• Benjamin Kline, "Treasure of Monte Cristo," Screen Guild-Nassour) with Glen Langan, Steve Broidy and Adele Jergens. Leonard Picker, director.

• Lucien Andriot, "Borderline," (Borderline Pictures) with Fred MacMurray, Claire Trevor, Jose Torvay and Don Diamond. William Seiter, director.

M. G. M.

• Harold Rosson, "On The Town," (Technicolor) with Frank Sinatra, Gene Kelly, Vera Ellen, Ann Miller, and Betty Garret. Gene Kelly, director.

• Paul Vogel, "Battleground," with Van Johnson, John Hodiak, Ricardo Montalban, George Murphy, Marshall Thompson, Tommy Breen, Jim Mitchell, Bruce Cowling, and Denise D'Arcele. William Wellman, director.

• Joe Ruttenberg, "Side Street," (shooting in New York) with James Craig, Farley Grainger, Paul Kelly, and Cathy O'Donnell. Anthony Mann, director.

• Charles Schoenbaum, "Stars In My Crown," with Joel McCrea, Ellen Drew and Lewis Stone. Jacques Tourneur, director.

• Robert Planck, "Bodies and Souls," with Glenn Ford, Gloria deHaven, Charles Coburn, Janet Leigh and Nancy Davis. Curtis Bernhardt, director.

• Harry Stradling, "Tension," with Audrey Totter, Richard Basehart and Cyd Charisse. John Berry, director.

• Harold Lipstein, "Ambush," with Robert Taylor, John Hodiak, and Don Taylor. Sam Wood, director.

• George Folsey, "Adam's Rib," with Spencer Tracy, Katherine Hepburn, Judy Holliday, and Tom Ewell. George Cukor, director.

• Ray June, "Nancy Goes To Rio," (Technicolor) with Ann Sothern, Jane Powell, Louis Calhern and Barry Sullivan. Robert Z. Leonard, director.

• Harry Stradling, "Tension," with Audrey Totter, Richard Basehart, Cyd Charisse, and Barry Sullivan. John Berry, director.

MONOGRAM

• Harry Neumann, "Boomtown Badmen," with Jimmy Wakely, Cannonball Taylor and Lois Hall. Oliver Drake, director.

• Lew W. O'Connell, "Jiggs and Maggie In Jackpot Jitters," with Joe Yule, Renee Riano, June Harrison, Tim Ryan. William Beaudine, director.

• William Sickner, "Black Midnight," with Roddy McDowall, Lynn Thomas and Kirby Grant. Oscar Boettinger, Jr., director.

• Harry Neumann, "Haunted Trails," with Whip Wilson, Andy Clyde and Reno Browne. Lambert Hillyer, director.

• Marcel LePicard, "Angels In Disguise," with Leo Gorcy, Huntz Hall and Jean Dean. Jean Yarbrough, director.

PARAMOUNT

• Charles Lang, "Copper Canyon," (Technicolor) with Ray Milland, Hedy LeMarr, Macdonald Carey, Mona Freeman, and Harry Carey, Jr. John Farrow, director.

• John Seitz, "Sunset Boulevard," with William Holden, Gloria Swanson, Erich von Stroheim, and Nancy Olson. Billy Wilder, director.

• Danile Fapp, "I Married A Dead Man," with Barbara Stanwyck, John Lund, Lyle Bettger, and Jane Cowl. Mitchell Leisen, director.

• Charles Lang, (Technicolor) "Where Men Are Men," with Bob Hope, Lucille Ball, Lea Penman, Jack Kirkland and Eric Blore. George Marshall, director.

R. K. O.

• Harry Wild, "Terror," with Michael O'Shea, Charles McGraw, Virginia Grey, Julie Bishop and Frank Conroy. Felix Feist, director.

• Nick Musuraca, "Bed of Roses," with Joan Fontaine, Robert Ryan and Zachary Scott. Nicholas Ray, director.

• Lee Garmes, "My Foolish Heart," (Samuel Goldwyn Prod.) with Dana Andrews, Susan Hayward, Kent Smith and Lois Wheeler. Mark Robson, director.

• J. Roy Hunt, "Arizona Ambush," with Tim Holt, Richard Martin, Jacqueline White, Robert Clarke, William Tannen, Robt. Barrat. Lesley Selander, director.

REPUBLIC

• Edward Cronjager, "House By The River," with Louis Hayward, Jane Wyatt, Lee Bowman, Dorothy Patrick. Fritz Lang, director.

20TH CENTURY-FOX

• Milton Krasner, "Three Came Home," with Claudette Colbert, Alan Marshall, and Florence Desmond. Jean Negulesco, director.

• Leon Shamroy, "Twelve O'Clock High," (Shooting in Florida) with Gregory Peck, Millard Mitchell, Hugh Marlowe, Paul Stewart, Gary Merrill, and Dean Jagger. Henry King, director.

• Jack Cardiff, "The Black Rose," (Technicolor) (Shooting in North Africa) with Tyrone Power, Cecile Aubry, Alfonso Bedoya, and Bobby Blake.

• Charles G. Clarke, "The Quartered City," (Shooting in Germany) George Seaton, director. No announcement on cast as yet.

• Arthur Arling, "Wabash Avenue," (Technicolor) with Betty Grable, Victor Mature, Phil Harris, Reginald Gardiner, Jacqueline Dalya and Margaret Hamilton. Henry Koster, director.

• Joseph LaShelle, "Oh, Doctor!" with Dorothy Maguire, William Lundigan, Jesse Royce Landis and Gary Merrill.

• Arthur Miller, "Whirlpool,"
Tierney, Richard Conte, Jose Fer
Bickford, Barbara O'Neal. Otto
director.

• Fred Jackman, Jr., "Fighting Pl
(Nat Holt Prodn.) with Raymond Scott, Victor Jory and Jane Nigh. Ed Marin, director.

• Lloyd Ahern, "Turned Up Toes," with Jean Peters, Caesar Romero, Paul Douglas. Keenan Wynn, Joan Davis and Arthur Treacher. Alexander Hall, director.

• Leo Tovar, "Front and Center," with Dan Dailey, Colleen Townsend, Corine Calvet and William Demarest. John Ford, director.

UNITED ARTISTS

• Joseph Biroc, "Mrs. Mike," (Sam Bischoff Prod.) with Dick Powell, Evelyn Keyes and J. M. Kerrigan. Louis King, director.

• Russell Harlan, "Gun Crazy," with Peggy Cummins, John Dahl, and Annabelle Shaw. Joseph H. Lewis, director.

• Robert DeGrasse, "A Kiss For Corliss," (Strand-Milbank-Berthugh-UA) with Shirley Temple, David Niven, Darryl Hickman, Virginia Welles, Tom Tulley and Robert Ellis. Richard Wallace, director.

• Ernest Laszlo, "The Big Wheel," (Stiefel Prod.) with Mickey Rooney, Thos. Mitchell, Michael O'Shea, Mary Hatcher and Spring Byington. Edward Ludwig, director.

UNIVERSAL-INTERNATIONAL

• Irving Glassberg, "Francis," with Donald O'Connor, Patricia Medina, Zasu Pitts, Richard Long and Ray Collins. Arthur Lubin, director.

• Russell Metty, "Bagdad," (Technicolor) with Maureen O'Hara, Paul Christian, Vincent Price, John Sutton and Anne Pearce. Charles Lamont, director.

• Charles Van Enger, "Kid From Texas," with Audie Murphy, Gale Storm and Albert Dekker. Kurt Neumann, director.

• Maury Gertsman, "Java," retitled "East of Java," with Shelly Winters, Macdonald Carey, Dorothy Hart and Luther Adler. H. Bruce Humberstone, director.

WARNER BROTHERS

• Sid Hickox, "White Heat," with James Cagney, Virginia Mayo, Edmond O'Brien, and Ray Montgomery. Raoul Walsh, director.

• Ernest Haller, "Chain Lightning," with Humphrey Bogart, Elinor Parker, Raymond Massey, and Richard Whorf. Stuart Heisler, director.

• Robert Burks, "Beyond The Forest," with Bette Davis, Joseph Cotten, David Brian, and Ruth Roman. King Vidor, director.

• Peverell Marley, "Perfect Strangers," with Ginger Rogers, Dennis Morgan, Margalo Gilmore, Anthony Ross and Alan Reed. Bretaigne Windust, director.

JAMES S. BROWN, Jr.

A.S.C. members were shocked to learn of the sudden death of fellow member James S. Brown, June 2nd. Brown was the son of a well-known physician, the late Dr. J. S. Brown of Montclair, N. J. He began camera work with the Thomas A. Edison Company. He was a photographic officer with the Signal Corps during World War I, and received a citation from General Pershing for his outstanding work.

Many of his picture credits were earned at Columbia studios.

LYWOOD CLOSE-UP

(Continued from Page 263)

in single close-ups, ahead of the face, never behind. Especially are hot spots unpleasant to look at when they are out of focus. If you have to have a foreground piece, keep it dark. Venetian blinds make excellent foreground pieces.

The old-fashioned idea that, in making a close-up in motion picture photography, the head of the person had to be in the exact center of the picture is now taboo. A head can be in a corner or on the side of the picture. Combined with some object d'art or some decorative theme, it can make a perfectly balanced and acceptable composition. The frame and part of a painting showing an exterior make an excellent combination with a head close-up.

Eyes usually should be in the upper part of the picture. No matter how beautiful a hat may be, cut it in half if it stops you from putting the wearer's eyes in the upper part of the picture. When a person looks up, place him in the lower part of the composition; when he looks down, put him in the upper part. Generally, leave more room at the side of the picture toward which the subject is looking. This allows the imagination to travel. Behind the head is yesterday, uninteresting. We cannot change it. Ahead of it is tomorrow, full of expectations. We can still mold it. A head can be against the side line of the picture when, for example, there is the suggestion of fear or menace behind (Fig. 2).

Composing Foreground and Background — When composing a picture, keep an eye open for the background. Have no lights or other objects growing out of the head (Fig. 1). A lamp shade may look like a hat or crown if left directly behind the head in the background. The foreground can be blended into the background with, for instance, the frame of a picture. Drawings or any other design on the wall also make a good background. Rembrandt knew the secret of leaving the background dark and lighting only what he wished to feature.

Theme—In motion pictures, a close-up is usually part of a group or two-shot, but there are also single close-ups. Whichever class it belongs to, a picture needs a theme. In films there is no time to waste. By merely looking at the picture, the audience should know or receive an impression of what it is all about. The thought must be put over in the shortest length of time. In portraits the same rule applies. Your picture should convey an idea, a message. To accomplish this, have the person do something—read, hold a book, play the piano or other musical instrument, paint, or whatever action may suit your picture.

If we wish to feature a necktie, a jewel, a medal, or part of a dress or uniform, etc., the face can be subdued. Always light what you try to feature.

Close-ups can be, and sometimes are, photographed with any of the lenses in general use. Most good lenses, however, have a tendency to sharpen the image, to reveal and even exaggerate hidden blemishes, wrinkles, etc., much to the disadvantage of the person photographed. Close-ups of Hollywood stars are known the world over for their exquisite beauty. They are the export of the American film industry, and should be photographed with lenses especially designed for the purpose of beautifying. The portrait lenses used in the making of the famous glamorous Hollywood close-ups are usually of 75-80 or 100 millimeters focal length.

In the past, especially on lower budget pictures, in order to save precious time it was customary to take advantage of the existing long shot illumination, and use it for shooting close-ups. When a long shot was made, instead of moving in on a close-up and relighting they merely switched lenses. The result was a flat, overlit, and usually disastrous close-up. This can easily be explained. In a long shot the face of an actor may be only a small part of the picture. Sometimes, to suit the balance of the lighting scheme, the scene is overlit. When we change lenses, we eliminate everything but the face, and all we get is a flat white surface. Fortunately, this practice is slowly becoming outmoded. *To get quality, every close-up should be lit separately and balanced individually.*

BULLETIN BOARD

(Continued from Page 234)

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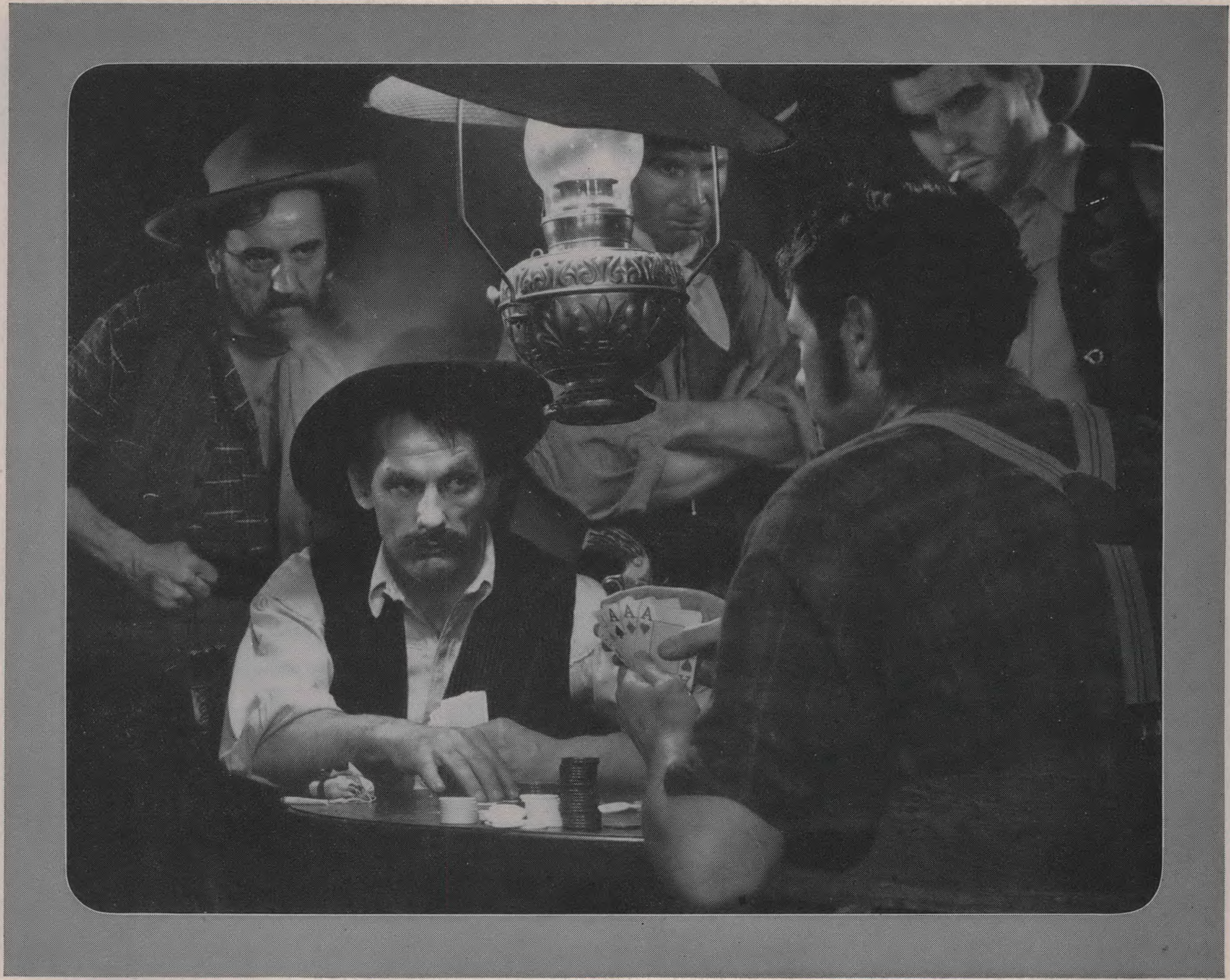

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BELL & HOWELL MATCHED Perfect Pairs

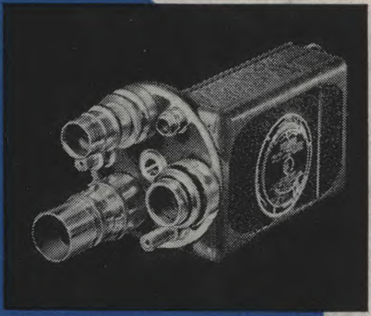
IN 16mm PERFORMANCE,
IN NEW FLEXIBILITY, IN B&H DEPENDABILITY

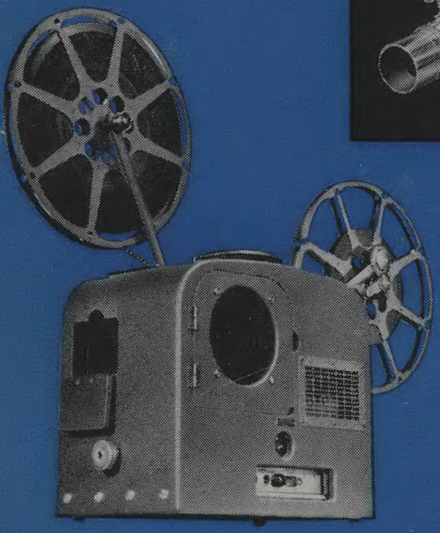
You *take* a professional picture . . . you *show* a professional picture . . . when your personal camera and projector are a Bell & Howell matched pair, *made for each other!*

You, of all the people who make movies, know the greater artistic satisfaction—and the true economy—that you achieve with matched, precision-made equipment. B&H Filmos give you dependable protection for your film, too, plus a flexibility in use that makes you the master of the widest variety of photographic situations. That's why you will discover new pleasure and lasting new enjoyment when you "work for pleasure" with a Filmo perfect pair.

The two perfect pairs shown here, and other matched Filmos, are at your camera dealer's now. See them soon! Or write Bell & Howell Company, 7148 McCormick Road, Chicago 45.

***NEW* ONE-CASE FILMOSOUND WITH MATCHING 16mm FILMO AUTO MASTER CAMERA**

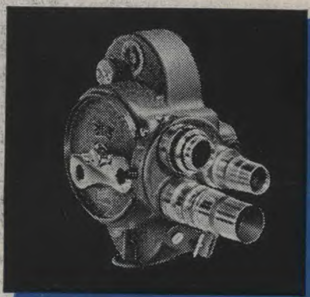


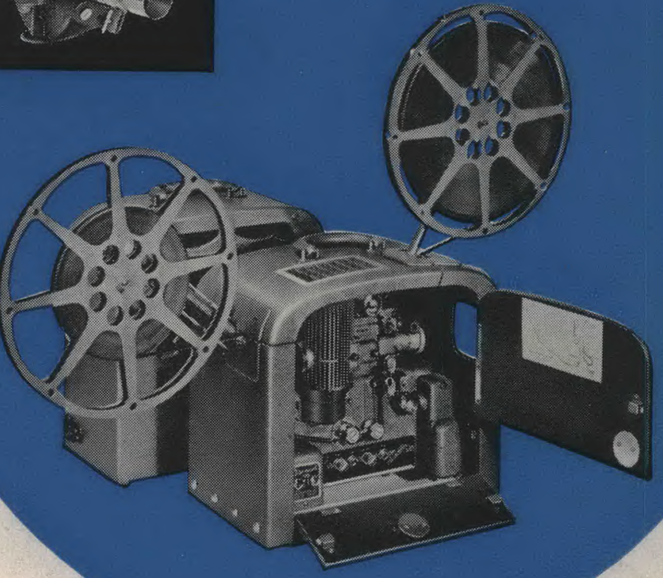


NEW ONE-CASE FILMOSOUND, always a wonderful buy, is now a better 16mm sound projector than ever before! Outstanding advances include new aluminum sound head to reduce noise radiation . . . new pre-aligned exciter lamp, matching in precision performance the famous B&H pre-aligned projection lamp . . . improved ventilation through new-type louvers . . . new reel arms that attach or detach in a jiffy . . . new lightness in weight. Higher undistorted sound output than any other lightweight sound projector. Six-inch speaker may be used in projector, or removed and placed near screen. For larger halls, 8-inch, 12-inch, and 25-watt power speakers are available. With 6-inch speaker, an outstanding value at only $449!

FILMO AUTO MASTER CAMERA. Three-lens turret. Positive viewfinders turn with the turret, always match lens in use. Five operating speeds include 64 frames per second for slow motion. Single-frame exposure control for animation tricks. Built-in exposure guide covers all films, all outdoor conditions. With 1" F1.9 lens only, $285 plus tax.

***NEW* ACADEMY FILMOSOUND WITH MATCHING 16mm FILMO 70-DA CAMERA**





NEW ACADEMY FILMOSOUND, 16mm sound film projector, offers the same outstanding advantages of the New One-Case Filmosound, but is equipped with an 8-inch speaker in a separate, streamlined case . . . for handling larger audiences. Complete flexibility is offered by 12-inch and 25-watt power speakers, available as required. With the 8-inch speaker, this improved Filmosound provides *double* the sound output of any other make of lightweight projector, yet it is now priced at only $495.

FILMO 70-DA CAMERA is the 16mm camera choice of advanced workers, both amateur and professional, the world over. With a 3-lens turret head, and seven operating speeds, the Filmo 70-DA loads with 100-foot film spools. As with every Filmo Camera, *what you see, you get!* Equipped with a 1" F1.9 Filmocoted lens only, now $295 plus tax.

EVERY FILMO IS GUARANTEED FOR LIFE. During life of product, any defects in workmanship or material will be remedied free (except transportation).

Precision-Made by

Bell & Howell

Since 1907 the Largest Manufacturer of Professional Motion Picture